# TOSHIBA COLOUR TELEVISION 1400TB5, OTHERS

## **SUMMARY**

This manual covers different parts between the following models and base models. Use the original service data of base models together.

Applicable Model	Original Service	e Data
1400TB5	File No. 050-393	1400TBT
1510 <b>TB</b> 5	File No. 050-417	1510TBT
1510TB6	File No. 053-417	1510TBW
2100TB5	File No. 050-298	2100TBT
2101TB5	File No. 054-298	2101TBT
2102TB7	File No. 053-298	2102TBZ
2103TB5	File No. 055-298	2103TBG
2500TB5	File No. 050-308	2500TBT

- For information of parts and schematic diagram, see the following pages.
- Circuits other than MAIN circuit are the same as those of base model.

# **DIFFERENT PARTS LIST**

			¬		<del></del>
Location	Part No.	Description	Location	Part No.	Description
No.	rait No.	Description	No.	Turt ito.	Везеприон
					• •
1400TB	<u>Б</u>		MISCELLAN	IEOUS	
140012	<u>-</u>		X401	23153721	Ceramic Resonator, 503kHz,
CAPACITOR	RS				TCR1023
1		EL, 1µF, ±20%, 50V,	XF01	_	Delete
C108	24000900	-	XF02	_	Delete
		Non-Polar	XF03	_	Delete
C444	24212221	CD, 220pF, ±10%	1 / " " "		20.010
C449		EL, 470μF, ±20%, 16V	DC BOARD	ACCEMID	LIEC
C520	24797478	EL, 0.47μF, ±20%, 50V	PC BOARD		
C664	<del>-</del>	Delete	U902A	23701917	·
C685	24797100	EL, 10µF, ±20%, 50V	U902B	23701948	•
CA33	24794471	EL, 470µF, ±20%, 16V	UF01	23700263	Text Board, PB3825
RESISTORS	1		ACCESSOR	IES	
R301	24366131	CF, 130 ohm	K902	23120092	Remote Hand Unit, CT-9616
R303		CF, 30k ohm	Y101	23561883	Owner's Manual, English
R405		CF, 430 ohm			
		•	CABINET P	ADTC	
R407		CF, 91 ohm			Front Cours
R409		CF, 200k ohm	A002	23418655	
R442		CF, 1M ohm	A004	23423757	
R502		CF, 330k ohm	A710	23568639	Label, Model No., Carton
R506		CF, 150k ohm			
R509		CF, 18k ohm			
R511		CF, 5600 ohm	<u> </u>		
R512	24366182	CF, 1800 ohm	1510TB		
R513	24366122	CF, 1200 ohm	ISIUIB	<u> </u>	
R534	_	Delete	CAPACITOR		
R536	24366331	CF, 330 ohm	1 1		
R538		CF, 390 ohm	C411	24590222	•
R539		CF, 1k ohm	C508	24085028	
R561		CF, 1200 ohm	C664	_	Delete
			C685	24794100	EL, 10μF, ±20%, 16V
R664		Delete	CF82	_	Delete
RA02	24366103	CF, 10k ohm	CF83	_	Delete
RA03		CF, 560 ohm	1 1		
RA04		CF, 4700 ohm	RESISTORS		
RA05	24366103	CF, 10k ohm	R451		VR, 10k ohm, 1/10W
RA12	_	Delete		24066600	
RA15	_	Delete	RA02	24366103	•
RA64	_	Delete	RA03	24366561	
RA98	_	Delete	RA04	24366472	· · · · · ·
RA99	_	Delete	RA05	24366103	CF, 10k ohm
RF80	_	Delete	RA12	-	Delete
RF82	_	Delete	RA15	_	Delete
	_		RF80	_	Delete
RF84		Delete	RF81	24383103	OMF, 10k ohm, 2W
RX04		CF, 750 ohm	RF82	_	Delete
RX10		CF, 470 ohm	RF84	_	Delete
RX20		CF, 270 ohm	RX20	24366271	
RX21		CF, 270 ohm	RX21		CF, 270 ohm
RX22	24366271	CF, 270 ohm	RX21		CF, 270 ohm
			RA22	2430027 I	Gr, 270 Oilli
COILS & T	RANSFOR	MERS	COLLE 9. TI		MEDC
L203	23237973	Coil, Peaking, TRF4151AC	COILS & TI	HUJEVIA	
LF81	_	Delete	LF81	_	Delete
LX01	_	Delete	LX01	_	Delete
LX02	_	Delete	LX02	_	Delete
LX03	_	Delete	LX03	_	Delete
LX04	_	Delete	LX04	_	Delete
T461	23236428	Transformer, Flyback,			
'**'	2J2JU420	AT2079/23	SEMICOND	UCTORS	
		A12013[23	ICA01	23904490	IC, M34300-687SP
CERTICONIS	LICTORS		QF81	23314374	Transistor, BD945
SEMICOND				200 170/4	
IC501		IC, TA8808AN	MICCELLAN	ioi ie	
ICA01	23904490	IC, M34300-687SP	MISCELLAN		B
QF81	23314374	Transistor, BD945	K901	23120220	Remote Sensor, IR-9109A-K
<u>L</u>					

IBLIES  Main Board, PB3824-1  CRT Drive Board, PB3824-2  Text Board, PB3825  Remote Hand Unit, CT-9616  Owner's Manual, English  Front Cover  Back Cover  Label, Model No., Carton	No.  UF01  ACCESSOI  K902  Y101  CABINET I  A002  A004  A711	23120092 23561883 PARTS 23419765 23424520	•
Main Board, PB3824-1 CRT Drive Board, PB3824-2 Text Board, PB3825 Remote Hand Unit, CT-9616 Owner's Manual, English Front Cover Back Cover	ACCESSOI K902 Y101 CABINET I A002 A004	23120092 23561883 PARTS 23419765 23424520	Remote Hand Unit, CT-9616
CRT Drive Board, PB3824-2 Text Board, PB3825  Remote Hand Unit, CT-9616 Owner's Manual, English  Front Cover Back Cover	K902 Y101 CABINET I A002 A004	23120092 23561883 PARTS 23419765 23424520	•
72 Text Board, PB3825 72 Remote Hand Unit, CT-9616 73 Owner's Manual, English 74 Front Cover 75 Back Cover	Y101  CABINET I  A002 A004	23561883  PARTS  23419765 23424520	•
Owner's Manual, English  Front Cover  Back Cover	A002 A004	23419765 23424520	
Owner's Manual, English  Front Cover  Back Cover	A004	23424520	
01 Front Cover 20 Back Cover			Front Cover
20 Back Cover	^/''	111LC071C	Back Cover
20 Back Cover		23568715	Label, Model No., Carton
· · · · · · · · · · · · · · · · · · ·	1 1		
0 Label, Model No., Carton	l		
	2100TE	35	•
	CAPACITO	RS	
	C502	_	Delete
,	C503	24436181	
l	C504	24436181	•
22 PF, 2200pF	RESISTOR	5	
<sup>18</sup> EL, 2.2μF, 25V, Non-Polar	R320		Delete
Delete	R409	24366204	· ·
00 EL, 10μF, ±20%, 16V	R501	24366561	,
Delete	R508	24366561	-
Delete	R524	_	Delete
	R525	_	Delete
•	R526		Delete
0 VR, 10k ohm, 1/10W	R527		Delete
Delete	R664		Delete
3 CF, 10k ohm	R667	_	Delete
1 CF, 560 ohm	R920	24000906	FR, 2.4 ohm, 2W
2 CF, 4700 ohm	RA02	24366472	CF, 4700 ohm
3 CF, 10k ohm	RA03	24366103	CF, 10k ohm
Delete	RA04	24366560	CF, 56 ohm
Delete	RA15		Delete
Delete	RA18	24366103	CF, 10k ohm
3 OMF, 10k ohm, 2W	RH07	24366271	
Delete	RH09	24366271	•
Delete	RH11	24366271	CF, 270 ohm
2 CF, 1200 ohm	<b> </b>		
1 CF, 270 ohm	COILS & T	RANSFOR	MERS
1 CF, 270 ohm	LA02		Delete
1 CF, 270 ohm		_	Dorote
	SEMICOND	UCTORS	
RMERS	IC501	B0384303	IC, TA8808BN
Delete	ICA01	23904501	IC, M34300-688SP
Delete	Q502	_	Delete
Delete	Q503	_	Delete
Delete	D405	_	Delete
Delete		Nous	
	MISCELLAI		Pomoto Conner ID 0100 V
	K901	23120303	•
0 IC, M34300-687SP	X401	23153721	
Delete	VEGA	00450057	TCR1023
4 Transistor, BD945	XF01 ZF01	23153657 23107744	,
0 Remote Sensor, IR-9109A-K	U101A	23702092	PIF Board, PB3897-1
·		_	Delete
0 Remote Sensor, IR-9109A-K BLIES	U101B		A/V Board, PB3897-3
·	U101B U101C	23702093	Headhone Board, PB3897-4
	·	U101A	U101A 23702092 BLIES U101B —

No.	Part No.	Description			
			No.		
U902A	23702091	Main Board, PB3898	U903B	23701206	Power Board, PB3152-2
U903A	23701205	CRT Drive Board, PB3152-1	UF01	23700263	Text Board, PB3825
U903B	23701206	Power Board, PB3152-2			
UF01	23700263	Text Board, PB3825	ACCESSOR	RIES	
			K902	23120324	Remote Hand Unit, CT-968
ACCESSOR	IES		Y101	23561914	
K902	23120324	Remote Hand Unit, CT-9689	1		
Y101	23561914	Owner's Manual, English	CABINET P	ARTS	
		_	A002		Front Cover
CABINET P.	ARTS		A004		Back Cover
A002	23418569	Front Cover	A710		Label, Model No., Carton
A004	23423627	Back Cover	'``'	20000700	
A710	23568751				•
7,70	25000707			<del></del>	
			2102TB	<b>57</b>	
2101TB	5		CAPACITO	RS	
			C368	24590104	
CAPACITOR	rs	ļ	C413	24590182	PF, 1800pF
C368	24590104	PF, 0.1μF	C503	24436181	CD, 180pF
C413	24590182	PF, 1800pF	C504	24436181	CD, 180pF
C502	_	Delete			
C503	24436181	CD, 180pF	RESISTORS	3	
C504	24436181	CD, 180pF	R409	24366204	CF, 200k ohm
		,,	R501	24366561	CF, 560 ohm
RESISTORS			R508	24366561	CF, 560 ohm
R320		Delete	R524	_	Delete
R409	24366204	CF, 200k ohm	R525	_	Delete
		CF, 560 ohm	R526	_	Delete
R501	24366561 24366561	CF, 560 ohm	R527		Delete
R508	2436000 I	Delete	R664	_	Delete
R524	_	Delete	R667	_	Delete
R525	_	Delete	R920	24000906	FR, 2.4 ohm, 2W
R526	_	Delete	RA02		CF, 4700 ohm
R527 R664	_	Delete	RA03		CF, 10k ohm
		Delete	RA04		CF, 56 ohm
R667	24000006	FR, 2.4 ohm, 2W	RA18		CF, 10k ohm
R920	24000906 24366472	CF, 4700 ohm	RH11	24366271	CF, 270 ohm
RA02		CF, 10k ohm	'	24000271	01, 2, 0 01111
RA03	24366103 24366560	CF, 56 ohm	SEMICOND	LICTORS	
RA04 RA15	Z4300300 —	Delete	IC501	B0384303	IC, TA8808BN
RA18	24366103	CF, 10k ohm	ICA01	23904501	IC, M34300-688SP
RH07		CF, 270 ohm	QF80		Transistor, BD945
RH09	24366271	CF, 270 ohm	QF60	23314374	Halisistol, DD345
RH11	24366271	CF, 270 ohm	MICCELLA	NOUE	
RHII	24300271	C1 , 270 SIIII	MISCELLAI K901	23120303	Remote Sensor, IR-9109-K
SEMICOND	UCTORS		K301	23120303	Memote Sensor, in 5105 K
IC501	B0384303	IC, TA8808BN	PC BOARD	ASSEMR	LIES
ICA01	23904501	IC, M34300-688SP	U101A		PIF Board, PB3897-1
QF80	23314374	Transistor, BD945	U101B	23702032	Delete
		·	U101C	23702093	
MISCELLAN	JOUS .		U101D	23702094	
K901	23120303	Remote Sensor, IR-9109-K		23702094	•
1301	20120003	HOMOLE CONSOL, IN-2 102-10	U902A		CRT Drive Board, PB3152-
	ACCEMID	LIES	U903A		
PC BOARD			U903B	23701206	•
U101A	23702092	•	UF01	23700263	Text Board, PB3825
U101B		Delete	ACCECCO	NEC	
U101C	23702093	A/V Board, PB3897-3	ACCESSOF		
U101D	23702094	Headhone Board, PB3897-4	K902	23120324	Remote Hand Unit, CT-968
U902A	23702188	Main Board, PB3977	Y101	23561914	Owner's Manual, English
U903A	23701205	CRT Drive Board, PB3152-1			
			ı		

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Location No.	Part No.	Description
CABINET !	PARTS	
A002		Front Cover
A004	23423762	Back Cover
A710	23568708	Label, Model No., Carton
2103TE	35	
RESISTOR	S	
R409		CF, 200k ohm
R501	24366561	CF, 560 ohm
R508	24366561	CF, 560 ohm
R524	_	Delete
R525		Delete
R526	_	Delete
R527	_	Delete
R664	_	Delete
R667		Delete
RA02		CF, 4700 ohm
RA03		CF, 10k ohm
RA04	24366560	CF, 56 ohm
RA15		Delete CF, 10k ohm
		CF, TUK OHIII
	DUCTORS	
IC501	B0384303	IC, TA8808BN
ICA01	23904501	IC, M34300-688SP
MISCELLA		
K901	23120303	Remote Sensor, IR-9109-K
PC BOARI	D ASSEMB	LIES
		PIF Board, PB3897-1
U101B	_	
	23702093	A/V Board, PB3897-3
U101D	23702094	Headhone Board, PB3897-4
U902A	23702091	Headhone Board, PB3897-4 Main Board, PB3898
UF01		Text Board, PB3825
ACCESSO	RIES	
K902		Remote Hand Unit, CT-9689
Y101		Owner's Manual, English
CABINET	PARTS	
A002	23410097	Front Cover
A004		Back Cover
A710	23568749	Label, Model No., Carton
2500T	<b>B</b> 5	
CAPACITO	ORS	
C502	_	Delete
C503	24436181	CD, 180pF
C504	24436181	CD, 180pF
RESISTOR	RS	
R320	_	Delete
R508	24366561	CF, 560 ohm
		Delete

Delete

R508 R524

Location No.	Part No.	Description
R525	_	Delete
R526	_	Delete
R527	_	Delete
R664		Delete
RA18	24366103	CF, 10k ohm
SEMICOND	JCTORS	
IC501	B0384303	IC, TA8808BN
ICA01	23904501	IC, M34300-688SP
Q502	_	Delete
Q503	_	Delete
MISCELLAN	ous	•
XF01		Crystal, 13.875MHz
ZF01	23107744	•
ZF02	_	Delete
ZF03	_	Delete
ZF04	_	Delete
PC BOARD	ASSEMB	LIES
U101A		PIF Board, PB3992-1
U101B	23/0220/ —	Delete
U101C		
U902A	23702209	A/V Board, PB3992-3 Main Board, PB3989
UF01		Text Board, PB3825
ACCESSOR	IEQ	
K902		Remote Hand Unit, CT-9689
Y101	23561914	Owner's Manual, English
CABINET P	ARTS	
A002		Front Cover
A004		Back Cover
A710	23568752	Label, Model No., Carton
:		

Location No.	Part No.	Description
TEXT BOAF		
(COMMON WII	H ALL MODE	ELS DESCRIBED ON COVER PAGE)
CAPACITOR		<b>-</b> , <b></b> ,
CF01	24797220	
CF02	24232103	
CF03	24212221 24436150	CD, 220pF, ±10%
CF05 CF06	24436150	
CF07	24590104	•
CF08		
CF09	24212221	CD, 220pF, ±10%
CF10	24212102	CD, 1000pF, ±10%
CF11	24590104	PF, 0.1μF
CF12	24436470	
CF14	24212271 24590104	CD, 270pF, ±10%
CF15 CF18	24590104	PF, 0.1µF
CF18	24430020	PF, 0.1μF
CF20		PF, 2200pF
CF21	24436100	CD, 10pF, ±0.25pF
CF24	24797100	EL, 10µF, ±20%, 50V
CF25		CD, 10pF, ±0.25pF
CF26	24436100	,
CF27	24436100	CD, 10pF, ±0.25pF
RESISTORS	<b>i</b>	
RF01		CF, 150k ohm
RF02	24366333	CF, 33k ohm
RF04		CF, 10k ohm
RF05	24366103	CF, 10k ohm CF, 1k ohm
RF06 RF07		CF, 1K onm CF, 6800 ohm
RF08		CF, 10k ohm
RF11	24366102	CF, 1k ohm
RF12	24366101	CF, 100 ohm
RF13	24366122	CF, 1200 ohm
RF14		CF, 8200 ohm
RF15 RF16		CF, 10k ohm CF, 33k ohm
RF17		CF, 100 ohm
RF18	24366101	CF, 100 ohm
RF19	24366101	CF, 100 ohm
RF20	24366101	CF, 100 ohm
RF21	24366101	CF, 100 ohm
RF22	24366101	CF, 100 ohm
RF23 RF24	24366222 24366222	
RF24 RF25	24366222	·
RF26	24366222	•
RF32	24366103	CF, 10k ohm
RF33	24366223	CF, 22k ohm
RF34	24366103	CF, 10k ohm
RF35	24366223	CF, 22k ohm
RF36 RF37	24366103 24366223	CF, 10k ohm CF, 22k ohm
RF38	24366102	CF, 1k ohm
RF39	24366102	CF, 1k ohm
RF40	24366102	CF, 1k ohm
RF41	24366102	
RF42	24366682	
RF43	24366103	CF, 10k ohm

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Location No.	Part No.	Description
COILS &	TRANSISTO	PRS
LF01	23238922	Coil, Peaking, TRF4100AC
LF02	23237996	Coil, Peaking, TRF4189AC
LF03	23238922	Coil, Peaking, TRF4100AC
LF04		Coil, Peaking, TRF4100AC
LF05		Coil, Peaking, TRF4100AC
LF06	23238922	Coil, Peaking, TRF4100AC
LF10		Coil, Peaking, TRF4100AC
LF11 LF12	23238922	Coil, Peaking, TRF4100AC Coil, Peaking, TRF4100AC
SEMICON	DUCTORS	
ICF01	23904245	IC, CF70095
ICF02	23904246	
ICF04	70119744	IC, PST523C
QF03	A6317440	Transistor, 2SC1815-Y
QF06	A6734585	Transistor, 2SC752GTM-O
QF07	A6734585	· · · · · · · · · · · · · · · · · · ·
QF08	A6734585	
QF09	A6317440	•
QF10	A6317440	Transistor, 2SC1815-Y
DF02	A7288690	
DF03	23115599	
DF04	23115599	•
DF05	23115599	
DF06	23115599	Diode, 1N4148
MISCELLA	NEOUS	
PF01	23367684	Plug, 11P
PF02	23367677	•
XF01	23153657	
ZF01		Filter, 3MHz, TEM1012
1		
1		
[		

# TERMINAL VIEW OF TRANSISTORS

① BC327 BC337 BC547A BC547B BC547C BC557A BC557B BC556A





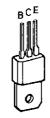


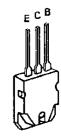










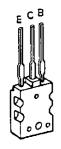


© 2SD1427 2SD1426



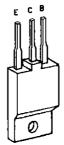
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 2SA1015
 2SC1959
 2SA562TM

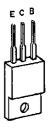
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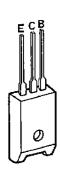


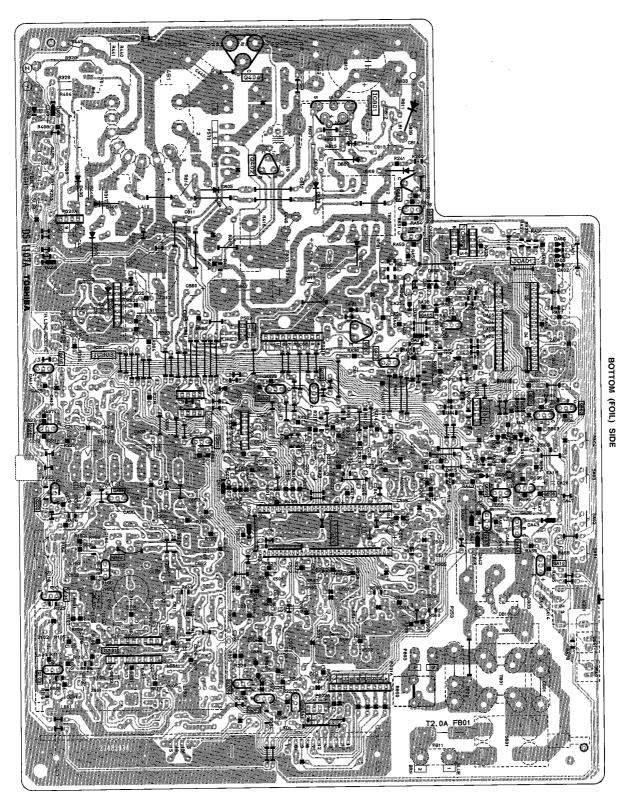






① ON4409





MAIN BOARD PB3826-1 (1400TB5)
PB3824-1 (1510TB5, 1510TB6)
BOTTOM (FOIL) SIDE

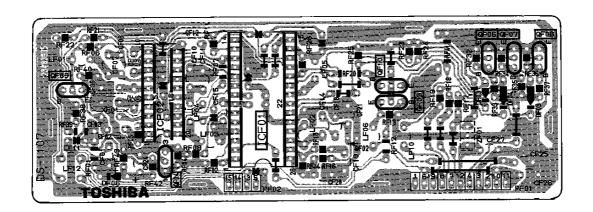
MAIN BOARD PB3898 (2100TB5, 2102TB7, 2103TB5)

BOTTOM (FOLL) SIDE

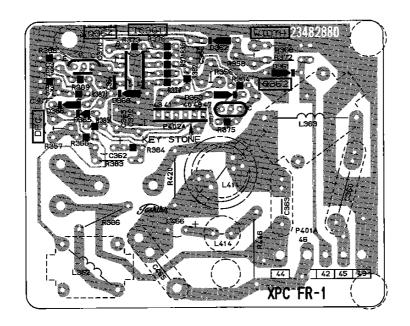
MAIN BOARD PB3977 (2101TB5)
BOTTOM (FOIL) SIDE

MAIN BOARD PB3989 (2500TB5) BOTTOM (FOLL) SIDE

# TEXT BOARD PB3825 (Common to each model) BOTTOM (FOIL) SIDE



# DPC BOARD PB0084-3 (2500TB5, 2500TBT) BOTTOM (FOIL) SIDE



# TOSHIBA COLOUR TELEVISION 1400TB5:OTHERS

### **SUMMARY**

This manual covers different parts between the following models and base models. Use the original service data of bese models together.

Applicable Model	Original Servic	e Data
1400TB5	File No. 050-393	1400TBT
1510TB5	File No. 050-417	1510TBT
1510TB6	File No. 053-417	1510TBW
2100TB5	File No. 050-298	2100TBT
2101TB5	File No. 054-298	2101TBT
2102TB7	File No. 053-298	2102TBZ
2103TB5	File No. 055-298	2103TBG
2500TB5	File No. 050-308	2500TBT

• For information of parts and schematic diagram, see the following pages.

# **DIFFERENT PARTS LIST**

Location	Part No.	Description
No.	rait No.	Description
4 400 TDE		
1400TB5		
U902A	23701917	Main Board, PB3826-1
U902B	23701948	CRT Drive Board, PB3826-2
UF01	23700263	Text Board, PB3825
K902	23120092	Remote Hand Unit, CT-9616
Y101	23561883	Owner's Manual, English
A710	23568639	Label, Model No., Carton
1510TB5		
U902A	23701903	Main Board, PB3824-1
U902B	23701915	CRT Drive Board, PB3824-2
UF01	23700263	Text Board, PB3825
K902	23120092	Remote Hand Unit, CT-9616
Y101	23561883	Owner's Manual, English
A711	23568640	Label, Model No., Carton
1510TB6		
U902A	23701903	Main Board, PB3824-1
U902B	23701915	CRT Drive Board, PB3824-2
UF01	23700263	Text Board, PB3825
K902	23120092	Remote Hand Unit, CT-9616
Y101	23561883	Owner's Manual, English
A711	23568715	Label, Model No., Carton
~′ ''	20000710	Eaboy, model itoly daylor
2100TB5		
	22702002	DIF B BB2007 1
U101A	23702092	PIF Board, PB3897-1
U101C	23702093	A/V Board, PB3897-3
U101D	23702094	Headhone Board, PB3897-4
U902A	23702091	Main Board, PB3898
U903A	23701205	CRT Drive Board, PB3152-1
U903B	23701206	Power Board, PB3152-2
UF01	23700263	Text Board, PB3825
K902	23120324	Remote Hand Unit, CT-9689
Y101	23561914	Owner's Manual, English
A710	23568751	Label, Model No., Carton
0404TD5		
2101TB5		DIE D. I. BROOK 4
U101A	23702092	PIF Board, PB3897-1
U101C	23702093	A/V Board, PB3897-3
U101D	23702094	· · · · · · · · · · · · · · · · · · ·
U902A	23702188	Main Board, PB3977
U903A	23701205	CRT Drive Board, PB3152-1
U903B	23701206	•
UF01	23700263	
K902	23120324	
Y101	23561914	_ <del>_</del>
A710	23568750	Label, Model No., Carton
0400===		
2102TB7		
U101A	23702092	
U101C	23702093	A/V Board, PB3897-3
U101D	23702094	
U902A	23702091	Main Board, PB3898
U903A	23701205	CRT Drive Board, PB3152-1
U903B	23701206	•
UF01	23700263	Text Board, PB3825
K902	23120324	
Y101	23561914	
A710	23568708	Label, Model No., Carton
2103TB5		
U101A	23702092	
U101C	23702093	A/V Board, PB3897-3

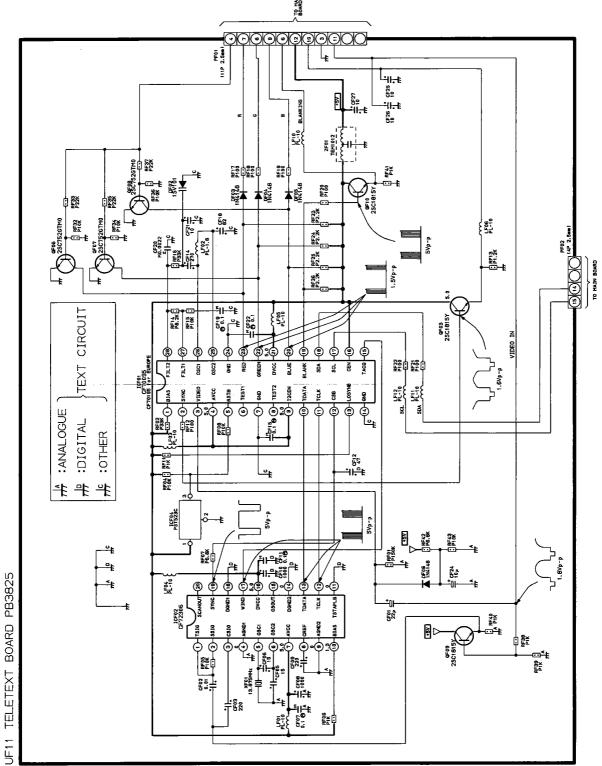
	Part No.	Description
U101D	23702094	Headhone Board, PB3897-4
U902A	23702091	•
UF01	23700263	
K902	23120324	
Y101	23561914	•
A710	23568749	• •
A/ 10	25500745	Laber, Woder Wo., Carton
2500TB5		DIE D. I. DDOOG 4
U101A	23702207	PIF Board, PB3992-1
U101C	23702208	
U902A	23702209	•
UF01	23700263	•
K902	23120324	
Y101		Owner's Manual, English
A710	23568/52	Label, Model No., Carton
	.RD PB382! TH ALL MODEL	5 .s described on cover page)
CAPACITO	RS	
CF01	24797220	EL, 22μF, ±20%, 50V
CF02	24232103	
CF03	24212221	CD, 220pF, ±10%
CF05	24436150	
CF06	24436150	
CF07	24590104	•
CF08	24212102	CD, 1000pF, ±10%
CF09	24212221	- · · · · · · · · · · · · · · · · · · ·
CF10	24212102	CD, 1000pF, ±10%
CF10 CF11	24212102	PF, 0.1μF
CF12	24436470	
CF14	24212271	CD, 270pF, ±10%
<b>○</b> , , <del> ,</del>	24590104	• •
CF15		CD, 82pF
CF15 CF18	2 <b>4</b> 426830	
CF18	24436820	
CF18 CF19	24590104	PF, 0.1μF
CF18 CF19 CF20	24590104 24590222	PF, 0.1μF PF, 2200pF
CF18 CF19 CF20 CF21	24590104 24590222 24436100	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF
CF18 CF19 CF20 CF21 CF24	24590104 24590222 24436100 24797100	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V
CF18 CF19 CF20 CF21 CF24 CF25	24590104 24590222 24436100 24797100 24436100	PF, $0.1\mu$ F PF, 2200pF CD, 10pF, $\pm 0.25$ pF EL, $10\mu$ F, $\pm 20\%$ , $50$ V CD, $10$ pF, $\pm 0.25$ pF
CF18 CF19 CF20 CF21 CF24 CF25 CF26	24590104 24590222 24436100 24797100 24436100 24436100	PF, $0.1\mu\text{F}$ PF, 2200pF CD, 10pF, $\pm 0.25\text{pF}$ EL, $10\mu\text{F}$ , $\pm 20\%$ , $50\text{V}$ CD, $10\text{pF}$ , $\pm 0.25\text{pF}$ CD, $10\text{pF}$ , $\pm 0.25\text{pF}$
CF18 CF19 CF20 CF21 CF24 CF25	24590104 24590222 24436100 24797100 24436100 24436100	PF, $0.1\mu$ F PF, 2200pF CD, 10pF, $\pm 0.25$ pF EL, $10\mu$ F, $\pm 20\%$ , $50$ V CD, $10$ pF, $\pm 0.25$ pF
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27	24590104 24590222 24436100 24797100 24436100 24436100 24436100	PF, $0.1\mu$ F PF, 2200pF CD, 10pF, $\pm 0.25$ pF EL, $10\mu$ F, $\pm 20\%$ , $50$ V CD, $10$ pF, $\pm 0.25$ pF CD, $10$ pF, $\pm 0.25$ pF CD, $10$ pF, $\pm 0.25$ pF
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27	24590104 24590222 24436100 24797100 24436100 24436100 24436100	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27 RESISTORS	24590104 24590222 24436100 24797100 24436100 24436100 24436100 S 24366154 24366333	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27 RESISTORS RF01 RF02 RF04	24590104 24590222 24436100 24797100 24436100 24436100 24436100 8 24366154 24366333 24366103	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27 RESISTORS RF01 RF02 RF04 RF05	24590104 24590222 24436100 24797100 24436100 24436100 24436100 8 24366154 24366333 24366103 24366103	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CF, 150k ohm CF, 33k ohm CF, 10k ohm CF, 10k ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27 RESISTORS RF01 RF02 RF04 RF05 RF06	24590104 24590222 24436100 24797100 24436100 24436100 24436100 8 24366154 24366333 24366103 24366103 24366102	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CF, 150k ohm CF, 33k ohm CF, 10k ohm CF, 10k ohm CF, 10k ohm CF, 10k ohm CF, 1k ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27 RESISTORS RF01 RF02 RF04 RF05 RF06 RF07	24590104 24590222 24436100 24797100 24436100 24436100 24436100 8 24366154 24366333 24366103 24366103 24366102 24366682	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CF, 150k ohm CF, 33k ohm CF, 10k ohm CF, 10k ohm CF, 10k ohm CF, 10k ohm CF, 16k ohm CF, 6800 ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27 RESISTORS RF01 RF02 RF04 RF05 RF06 RF07 RF08	24590104 24590222 24436100 24797100 24436100 24436100 24436100 8 24366154 24366333 24366103 24366103 24366102 24366682 24366103	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF  CF, 150k ohm CF, 33k ohm CF, 10k ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27  RESISTORS RF01 RF02 RF04 RF05 RF06 RF07 RF08 RF11	24590104 24590222 24436100 24797100 24436100 24436100 244366100 24366103 24366103 24366103 24366103 24366103 24366103 24366102	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CF, 150k ohm CF, 33k ohm CF, 10k ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27 RESISTORS RF01 RF02 RF04 RF05 RF06 RF07 RF08	24590104 24590222 24436100 24797100 24436100 24436100 24436100 8 24366154 24366333 24366103 24366103 24366102 24366682 24366103	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF  CF, 150k ohm CF, 33k ohm CF, 10k ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27  RESISTORS RF01 RF02 RF04 RF05 RF06 RF07 RF08 RF11	24590104 24590222 24436100 24797100 24436100 24436100 244366100 24366103 24366103 24366103 24366103 24366103 24366103 24366102	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CF, 150k ohm CF, 33k ohm CF, 10k ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27  RESISTORS RF01 RF02 RF04 RF05 RF06 RF07 RF08 RF11 RF12	24590104 24590222 24436100 24797100 24436100 24436100 244366103 24366333 24366103 24366103 24366103 24366602 24366101 24366102 24366101 24366102	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CF, 150k ohm CF, 33k ohm CF, 10k ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27  RESISTOR: RF01 RF02 RF04 RF05 RF06 RF07 RF08 RF11 RF12 RF13	24590104 24590222 24436100 24797100 24436100 24436100 244366103 24366333 24366103 24366103 24366103 24366602 24366101 24366102 24366101 24366102	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF  CF, 150k ohm CF, 33k ohm CF, 10k ohm CF, 100 ohm CF, 1200 ohm CF, 8200 ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27  RESISTOR: RF01 RF02 RF04 RF05 RF06 RF07 RF08 RF11 RF12 RF13 RF14	24590104 24590222 24436100 24797100 24436100 24436100 244366100 24366154 24366103 24366103 24366102 24366102 24366101 24366102 24366101 24366102 24366102 24366102 24366103	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF  CF, 150k ohm CF, 33k ohm CF, 10k ohm CF, 1200 ohm CF, 1200 ohm CF, 8200 ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27  RESISTORS RF01 RF02 RF04 RF05 RF06 RF07 RF08 RF11 RF12 RF13 RF14 RF15	24590104 24590222 24436100 24797100 24436100 24436100 244366100 24366154 24366103 24366103 24366102 24366102 24366101 24366102 24366101 24366102 24366102 24366102 24366103	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF  CF, 150k ohm CF, 33k ohm CF, 10k ohm CF, 100 ohm CF, 100 ohm CF, 1200 ohm CF, 1200 ohm CF, 13k ohm CF, 10k ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27  RESISTORS RF01 RF02 RF04 RF05 RF06 RF07 RF08 RF11 RF12 RF13 RF14 RF15 RF16	24590104 24590222 24436100 24797100 24436100 24436100 244366100 24366133 24366103 24366103 24366102 24366102 24366101 24366102 24366101 24366102 24366103 24366103 24366333	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF  CF, 150k ohm CF, 33k ohm CF, 10k ohm CF, 100 ohm CF, 100 ohm CF, 1200 ohm CF, 1200 ohm CF, 13k ohm CF, 10k ohm CF, 10k ohm CF, 10k ohm CF, 100 ohm CF, 100 ohm CF, 10k ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27  RESISTOR: RF01 RF02 RF04 RF05 RF06 RF07 RF08 RF11 RF12 RF13 RF14 RF15 RF16 RF17	24590104 24590222 24436100 24797100 24436100 24436100 244366103 24366154 24366333 24366103 24366103 24366102 243666102 243666101 24366101 24366333 24366333 24366101 24366333	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF  CF, 150k ohm CF, 33k ohm CF, 10k ohm CF, 100 ohm CF, 100 ohm CF, 1200 ohm CF, 1200 ohm CF, 13k ohm CF, 10k ohm CF, 10k ohm CF, 10k ohm CF, 10k ohm
CF18 CF19 CF20 CF21 CF24 CF25 CF26 CF27  RESISTOR: RF01 RF02 RF04 RF05 RF06 RF07 RF08 RF11 RF12 RF13 RF14 RF15 RF16 RF17 RF18	24590104 24590222 24436100 24797100 24436100 24436100 244366103 24366154 24366333 24366103 24366103 24366102 243666102 243666101 24366101 24366333 24366333 24366101 24366333	PF, 0.1μF PF, 2200pF CD, 10pF, ±0.25pF EL, 10μF, ±20%, 50V CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF CD, 10pF, ±0.25pF  CF, 150k ohm CF, 33k ohm CF, 10k ohm CF, 100 ohm CF, 1200 ohm CF, 1200 ohm CF, 10k ohm CF, 10k ohm CF, 10k ohm CF, 10k ohm CF, 100 ohm

Location	Part No.	Description
No		
RF22	24366101	CF, 100 ohm
RF23	24366222	CF, 2200 ohm CF, 2200 ohm
RF24	24366222	CF, 2200 ohm
RF25		CF, 2200 ohm
RF26	24366222	CF, 2200 ohm
RF32		CF, 10k ohm
RF33	24366223	CF, 22k ohm CF, 10k ohm
RF34	24366103	CF, 10k ohm
RF35	24366223	CF, 22k ohm
RF36		CF, 10k ohm
RF37	24366223	CF, 22k ohm
RF38		
RF39	24366102	CF, 1k ohm CF, 1k ohm
RF40	24366102	CF, 1k ohm
RF41		CF, 1k ohm
RF42		CF, 6800 ohm
RF43		CF, 10k ohm
111 45	24500100	0., 70.0 0
COILS & 1	<b>TRANSISTO</b>	RS
LF01		Coil, Peaking, TRF4100AC
LF02		Coil, Peaking, TRF4189AC
LF03		Coil, Peaking, TRF4100AC
LF04		Coil, Peaking, TRF4100AC
LF05		Coil, Peaking, TRF4100AC
LF06	23230322	Coil Peaking TRF4100AC
LF10	23230322	Coil, Peaking, TRF4100AC Coil, Peaking, TRF4100AC
LF10 LF11	22236822 23236822	Coil, Peaking, TRF4100AC
LF12		Coil, Peaking, TRF4100AC
LI IZ	23230322	Con, 1 canning, 1111 + 100/10
SEMICON	OUCTORS	
ICF01		IC. CF70095
ICF02		IC, CF72306
1CF04		IC, PST523C
QF03		Transistor, 2SC1815-Y
QF06		Transistor, 2SC752GTM-O
QF07		Transistor, 2SC752GTM-O
QF08		Transistor, 2SC752GTM-O
QF09		Transistor, 2SC1815-Y
-		Transistor, 2SC1815-Y
QF10		Diode, 1SV101
DF02		Diode, 1N4148
DF03		Diode, 1N4148
DF04		D: 1 414440
DF05		Diode, 1N4148
DF06	23115599	Diode, 1N4148
MISCELLA	NEOUS	
PF01	23367684	Plug, 11P
PF02	23367677	O.
XF01	23153657	3,
ZF01		Filter, 3MHz, TEM1012
2,01	2010//44	Thought in the second
1		
	•	

Location No.	Part No.	Description
	•	

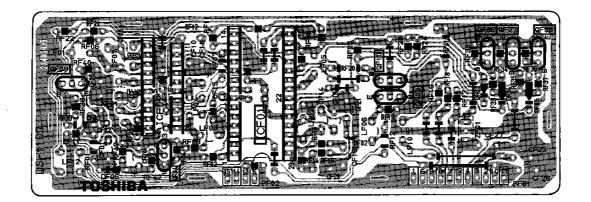


- 2 -



# **TEXT BOARD PB3825**

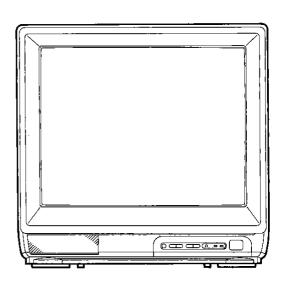
BOTTOM (FOIL) SIDE



# **TOSHIBA CORPORATION**

1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105, JAPAN

# TOSHIBA COLOUR TELEVISION 2100TBT



### **SPECIFICATIONS** 95 watts, AC 240 volts, 50 Hz Input Power Rating: 75 ohm unbalanced type for UHF Aerial Input Impedance: Receiving Channels: PAL | Standard: UHF ...... channels 21 to 68 Intermediate Frequencies: 21 inches, A51JRU40X05(MW), 510 mm (measured on diagonal of viewable Picture Tube: picture area), 90° deflection 3.0 watts (at 10% harmonic distortion), Max. 4.5 watts Sound Output: 70 mm x 60 mm oval Speakers: Headphone Jack, 21 pin socket, S-VIDEO/AUDIO socket, A/V INPUT socket Aux. Terminals: Dimensions: Width ...... 511 mm 20.5 kg Weight:

Specifications are subject to change without notice.



### SAFETY INSTRUCTIONS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

### X-RAY RADIATION PRECAUTION

- 1. The E.H.T. must be checked every time the receiver is serviced to ensure that the C.R.T. does not emit X-ray radiation as result of excessive E.H.T. voltage. The nominal E.H.T. for this receiver is 27.5 kV at zero beam current (minimum brightness) operating at 240V a.c. The maximum E.H.T. voltage permissible in any operating circumstances must not exceed 29.0 kV. When checking the E.H.T., use the 'High Voltage Check' procedure in this manual using an accurate E.H.T. voltmeter.
- The only source of X-RAY radiation in this receiver is the C.R.T. To prevent X-ray radiation, the replacement C.R.T. must be identical to the original fitted as specified in the Parts List.
- Some components used in this receiver have safety related characteristics preventing the C.R.T. from emitting X-ray radiation.
  - For continued safety, replacement component should only be made after referring the Product Safety Notice below.

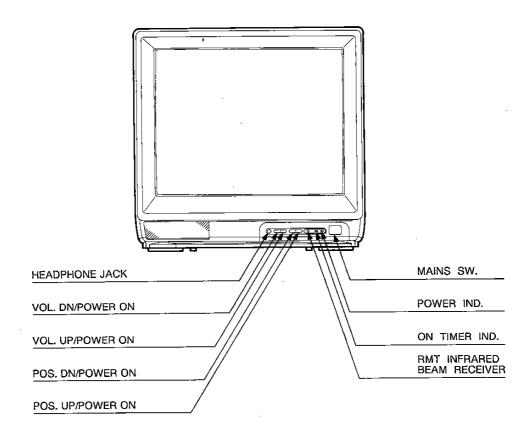
### SAFETY PRECAUTION

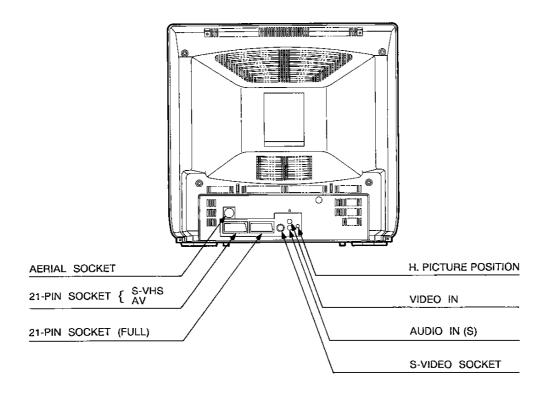
- This receiver has a nominal working E.H.T. voltage of 25.0 kV. Extreme caution should be exercised when working on the receiver with the back removed.
  - Do not attempt to service this receiver if you are not conversant with the precautions and procedures for working on high voltage equipment.
  - When handling or working on the C.R.T., always discharge the anode to the receiver chassis before removing the anode cap
  - The C.R.T., if broken, will violently expel glass fragments. Use shatter proof goggles and take extreme care while handling.
  - Do not hold the C.R.T. by the neck as this is a very dangerous practice.
- It is essential that to maintain the safety of the customer all cable forms be replaced exactly as supplied from factory.
- 3. A small part of the chassis used in this receiver is, when operating, at approximately half mains potential at all times. It is therefore essential in the interest of safety that when serving or connecting any test equipment the receiver should be supplied via a suitable isolating transformer of adequate rating.
- Replace blown fuses within the receiver with the fuse specified in the parts list.
- 5. When replacing wires or components to terminals or tags, wind the leads around the terminal before soldering. When replacing safety components identified by the international hazard symbols on the circuit diagram and parts list, it must be a Toshiba approved type and must be mounted as the original.
- Keep wires away from high temperature components.

### PRODUCT SAFETY NOTICE

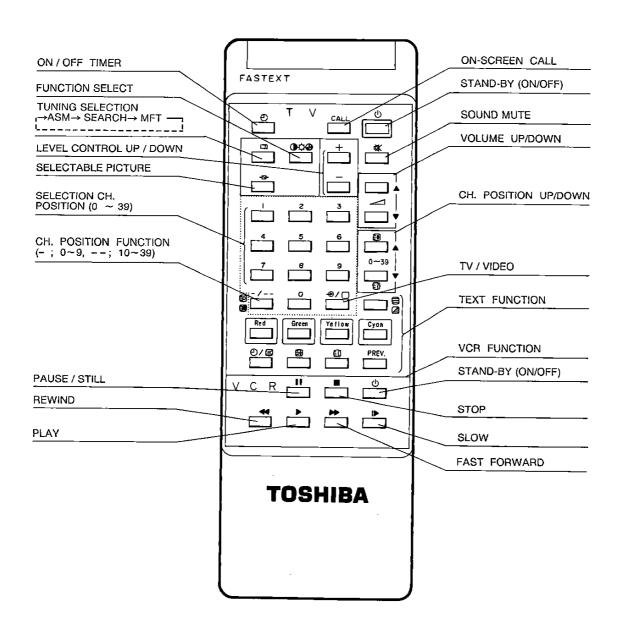
Many electrical and mechanical components in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the X-ray radiation protection afforded by them cannot necessarily be obtained by using replacements rated at higher voltages or wattage, etc.Components which have these special safety characteristics in this manual and its supplements are identified by the international hazard symbols on the schematic diagram and parts list. Before replacing any of these components read the parts list in this manual carefully. Substitute replacement components which do not have the same safety characteristics as specified in the parts list may create X-ray radiation.

# FRONT CONTROLS AND REAR VIEWS





### REMOTE HAND HELD UNIT



### INSTALLATION AND SERVICE ADJUSTMENTS

### **GENERAL INFORMATIONS**

All adjustments are thoroughly checked and corrected when the receiver leaves the factory. Therefore the receiver should operate normally and produce proper colour and B/W pictures upon installation. However, several minor adjustments may be required depending on the particular location in which the receiver is operated.

This receiver is shipped completely in cardboard carton. Carefully draw out the receiver from the carton and remove all packing materials.

Plug the power cord into a convenient 240 volts 50 Hz AC two pin power outlet. Turn the receiver ON. Check and adjust all the customer controls such as BRIGHTNESS, CONTRAST and COLOUR Controls to obtain natural colour or B/W picture.

### **AUTOMATIC DEGAUSSING**

A degaussing coil is mounted around the picture tube so that external degaussing after moving the receiver is normally unnecessary, providing the receiver is properly degaussed upon installation. The degaussing coil operates for about 1 second after the power to the receiver is switched ON. If the set is moved or faced in a different direction, the power switch must be switched off at least one hour in order that the automatic degaussing circuit operates properly. Should the chassis or parts of the cabinet become magnetized to cause poor colour purity, use an external degaussing coil. Slowly move the degaussing coil around the faceplate of the picture tube, the sides and front of the receiver and slowly withdraw the coil to a distance of about 2 m before disconnecting it from AC source. If colour shading still persists, perform the COLOUR PURITY ADJUSTMENT and CONVERGENCE ADJUSTMENTS procedures.

### +120 VOLT POWER SUPPLY ADJUSTMENT (R851)

**CAUTION**: +B voltage closely relates to the high voltage. To prevent hazardous X-RAY RADIATION, the +B voltage must be properly adjusted to +120 volts.

- Tune in an active channel. Adjust the BRIGHTNESS and CONTRAST Controls for normal picture.
- Check that the AC power Line voltage is normal. (AC 240 volts, 50 Hz)
- Connect a digital voltmeter to both leads of C451.
- 4. Adjust R851 for 120V reading on the meter.
- 5. Remove the digital voltmeter.

### HIGH VOLTAGE CHECK

**CAUTION**: There is no HIGH VOLTAGE ADJUSTMENT on this chassis.

- Connect an accurate high voltage meter to the second anode of the picture tube.
- Turn on the receiver. Set the BRIGHTNESS and CONTRAST Controls to minimum (zero beam current).
- 3. High voltage will be measured below 29.0 kV.
- Rotate the BRIGHTNESS Control to both extremes to be sure the high voltage does not exceed the limit of 29.0 kV under any conditions.

### **HEIGHT ADJUSTMENT**

- Receive the WG PHILIPS pattern, and set the contrast and colour to minimum, and the brightness to centre.
- Change the VERT POSITION SW (\$301) so the round shape in the pattern is located in the centre of screen.
- HEIGHT Control (R351) changes the size of the picture or pattern, having an equal effect on the top and bottom. Make final adjustment to overscan the mask 2 cm at top and bottom.

### HORIZONTAL CENTRE ADJUSTMENT

- 1. Receive the WG PHILIPS pattern.
- 2. Set the contrast and colour to minimum, and the bringhtness to centre.
- Adjust H. CENTRE USER Control (R452) to the click (centre) position.
- Adjust H. CENTRE SUB Control (R451) so the pattern centre can be located at the screen centre.

### FOCUS ADJUSTMENT

Adjust FOCUS Control on FLYBACK TRANS.(T461) for well defined scanning lines in the centre area on the screen.

### **DELAYED R-F AGC ADJUSTMENT**

- 1. Tune the set in the strongest station in your area.
- 2. Turn AGC DELAY Control (R151) on PIF Board to fully counterclockwise position.
- Adjust AGC DELAY Control clockwise until noise (snow) disappears on the screen.

### PAL MATRIX ADJUSTMENT

- 1. Tune in the colour programme of the Philips pattern.
- Set the COLOUR Control to obtain the proper colour.
- If the PAL MATRIX adjustment is incorrect, the Venetian Blind would appear in the colour bars area. This case needs the adjustment.
- At the first, adjust DL PHASE ADJ. Coil (L551) to minimize the Venetian Blind.
- Next adjust 1H-DL ADJ. VR (R551) to minimize the Blind.
- If the Venetian Blind still remains, adjust 1H-DL PHASE ADJ. Coil (L551) to minimize the Blind again.
- 7. Repeat the item 5 and 6 procedures, adjust the R551 and L551 until the Blind does not appear.

### **CRT GREY SCALE ADJUSTMENT**

- 1. Tune in an active channel.
- Turn the SCREEN Control (on T461) fully counterclockwise.
- Rotate the RED, GREEN and BLUE CUT OFF Controls (R557, R558, R559) counterclockwise to the minimum.
- 4. Set the GREEN and BLUE DRIVE Controls (R252, R253) to the mid position.
- 5. Set the SERVICE SW. (S202) in the H. line posiiton.
- Short temporarily terminal of RASTER CHIP on the CRT DRIVE Board.
- Set the CONTRAST, COLOUR Controls to minimum and BRIGHTNESS Control to centre position.
- Open the lerminal of RASTER CHIP on the CRT DRIVE Board.
- Rotate the SCREEN Control gradually clockwise until the first line appears slightly on the screen. Set the SCREEN Control to this position.
- 10. Adjust the CUT OFF Controls to obtain the slightly lighted horizontal lines in the same levels of three colours (RED, GREEN and BLUE). The lines may look like white if the CUT OFF Controls are adjusted properly.
- 11. Return the SERVICE SW. (S202) in the receiving position.
- 12. Set the BRIGHTNESS Control to the maximum and COLOUR Control to the minimum.
- Adjust the BLUE and GREEN DRIVE Controls (R252/R253) to obtain proper white-balanced picture in high light areas.
- 14. Set the BRIGHTNESS and CONTRAST Controls to obtain dark grey raster. Then check the white balance in low brightness. If the white balance is not proper, retouch the CUT OFF Controls and DRIVE Controls to obtain a good white balance in both low and high light areas.

### SUB-BRIGHTNESS ADJUSTMENT

- 1. Tune in a colour programme.
- 2. Set the CONTRAST Control to the maximum and the BRIGHTNESS Control to the centre.
- 3. Set the COLOUR Control to the minimum.
- Set the SUB-BRIGHT. Control (R255) to the centre and leave the receiver for five minutes in this state.
- Watching the picture well, adjust the SUB-BRIGHT. Control in the position where the picture does not show evidence of blooming in high bright area and not appear too dark in low bright portion.
- Check the proper picture variation by rotating the CONTRAST and BRIGHTNESS Controls to both extremes.
- 7. If the picture does not appear dark with the CONTRAST and BRIGHTNESS Controls turned to the minimum, or not appear bright with the controls turned to the maximum, adjust the SUB-BRIGHT. Control again for the acceptable picture.

### SIF DET (L651) ADJUSTMENT

- 1. Connect SIF generator to pin 16 of IC101 through  $0.01 \mu F$  capacitor.
- 2. Connect the oscilloscope to pin 9 of IC101.
- Set up the SIF generator as described below.

Sound carrier frequency : 6.0 MHZ
Modulation frequency : 1000 Hz
Frequency deviation : ±15 kHz
Signal level : 80 dBu

: 80 dB<sub>µ</sub> (50 ohm load)

 Adjust L651 for the maximum response of 1000 Hz det-out on scope.

# PICTURE I-F SWEEP ALIGNMENT

GENERAL	Refer to figure 1 for test equipment connection.	
PRELIMINARY STEPS	1. Disconnet the IF Board from the Main Board.	
	2. Supply +12 volts to the IF Board (Pin 1 of P101).	
	3. Connect the detector to pin 18 of IC101.	
SWEEP/MARKER GENERATOR	. Connect to the pin 6 of P101 as shown in figure 1 on the IF Board.	
	Set to 30 ~ 40 MHz sweep with signal level of 75 ~ 85 dBμ.	
OSCILLOSCOPE	Connect through the detector probe to the pin 18 of IC101 on the IF Board.	

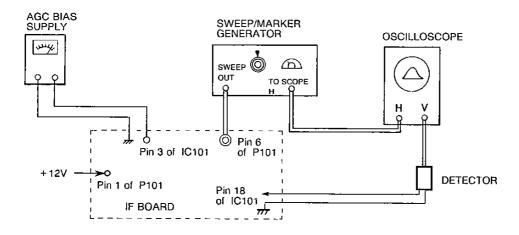


Figure 1. Picture IF Sweep Alignment

STEP	SWEEP/MARGER GENERATOR	ADJUST	REMARKS
Detector Coil	39.5 MHz Marker "ON"	L151	<ul> <li>Supply +2 to +3 volts to pin 1 of IC101 to set the output level for 0.4 Vp-p on the scope.</li> <li>Adjust L151 so that the marker position (39.5 MHz) on the response can lower to minimum. (See figure 2.)</li> </ul>
After completing the above steps, disconnect the equipment and re-solder the liniks on the Main Board, and adjust the AGC Delay control (R151) following DELAYED RF AGC ADJUSTMENTS.			

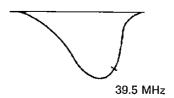


Figure 2. Magnified Response Curve

## **AFC ALIGNMENT**

GENERAL		Refer to figure 3 for test equipment connection.		
	PRELIMINARY STEPS	<ol> <li>Disconnect the IF Board from the Main Board.</li> </ol>		
		2. Supply + 12 volts to the IF Board. (Pin 1 of P101)		
		3. Turn AGC DELAY Control (R151) on the IF Board fully clockwise		
	DVM	Connect to the resistor R171 (@ in figure 3) and ground.		

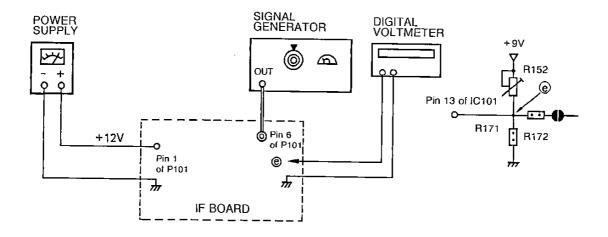


Figure 3. AFC Alignment

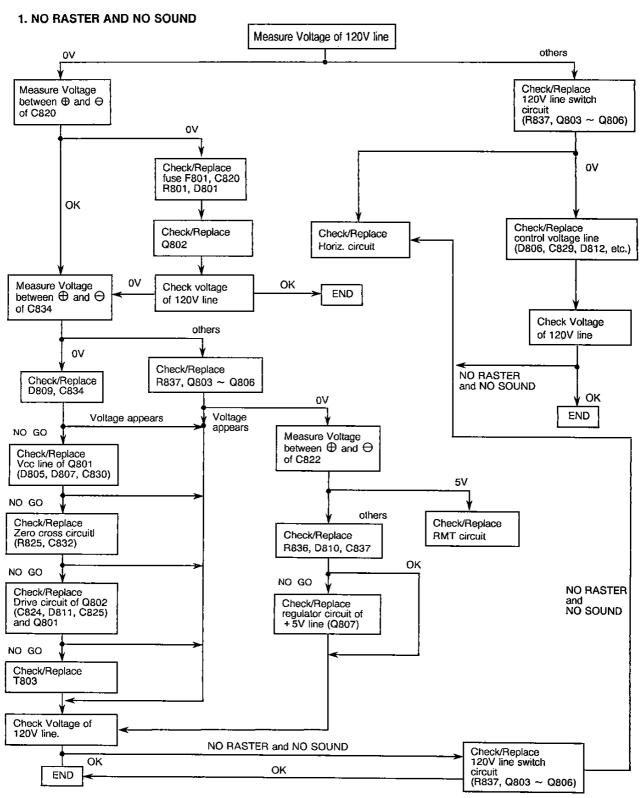
STEP	SIGNAL GENERATOR	ADJUST	REMARKS
1. AFC Balance (R152)	NO SIGNAL	R152	<ul> <li>Short the pin 1 of IC101 to ground.</li> <li>Adjust R152 for 4.5 volts at the point ® in figure 3.</li> </ul>
2. AFC Coil (L152)	39.5 MHz CARRIER WAVE (Level : 75 to 85 dB <sub>µ</sub> )	L152	<ul> <li>Remove the short of pin 1 of IC101.</li> <li>Connect IF carrier wave to the pin 6 of P101 in figure 3.</li> <li>Adjust L152 for 2.5 volts on the meter at the point <sup>®</sup>.</li> </ul>

### TROUBLESHOOTING CHARTS

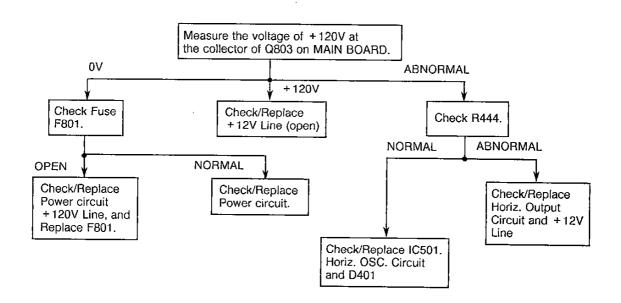
The following charts are devoted to troubleshooting which, if followed carefully, will assist you in tracking down a fault to the correct stage.

In order to utilize the charts (fault trees), firstly establish the complaint, i.e. - No Raster, No Sound.

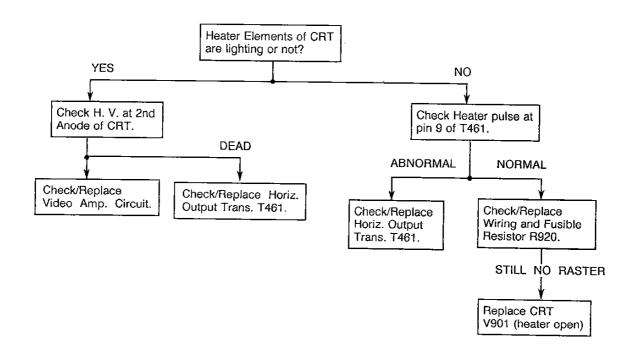
Locate the chart applicable and then progress through the various alternatives until a final block indicates the offending components or stage.



### 2. NO RASTER (NOISE OR WEAK SOUND)

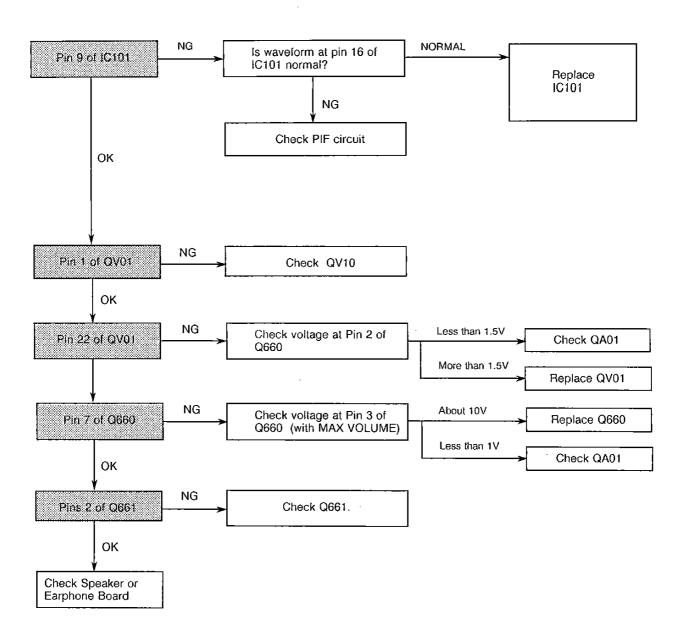


### 3. NO RASTER (SOUND OK)



### 4. NO SOUND

Note: Check the sound signal waveform for shaded area below.



### 5. NO PICTURE

Check video signal waveform for shaded area below.

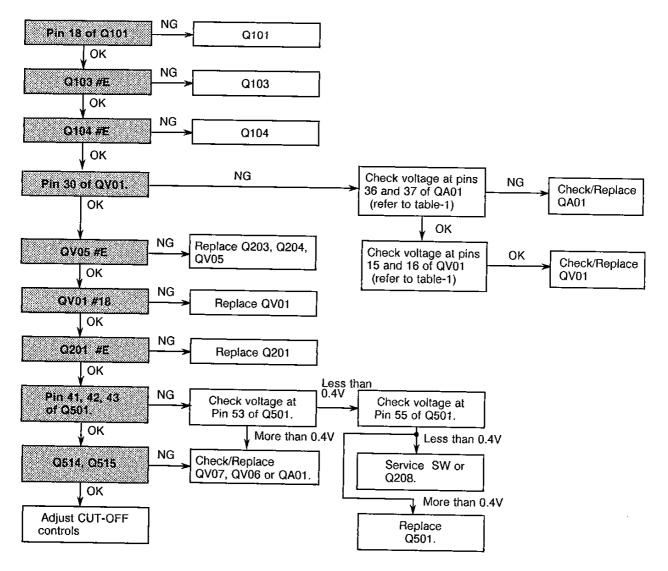


Table-1 (A/V SW. LOGIC)

MODE	QA01		QV01	
	Pin 36	Pin 37	Pin 15	Pin 16
TV	*H	*H	*H	*H
VIDEO-1	Н	L	Н	
VIDEO-2	L	L	L	L
VIDEO-2S	L	Н	L	L

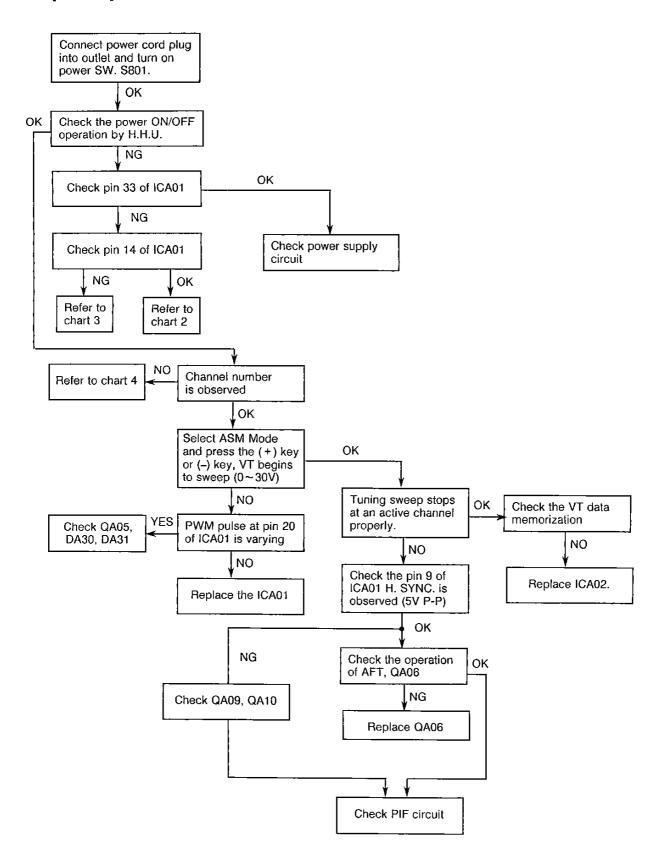
L : Less than 2.5V H : More than 2.5V

Note: \* marks denote as follows.

AV SW LOGIC is same as VIDEO-1 mode when pin 8 of 21 PIN-1 is high level. AV SW LOGIC is same as VIDEO-2 mode when pin 8 of 21 PIN-2 is high level.

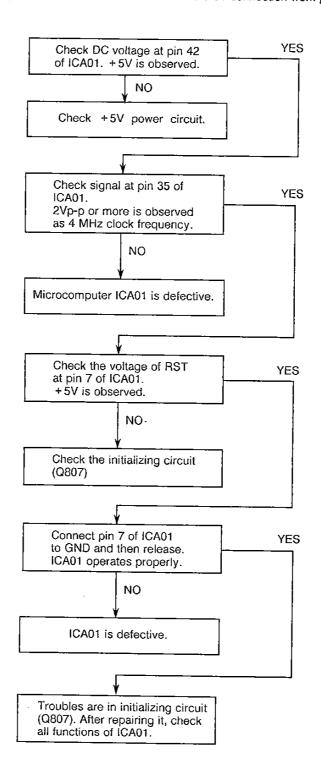
AV SW LOGIC is same as VIDEO-1 mode when pin 8 of 21 PIN-1 and 21 PIN-2 are high level.

# 6. CHANNEL SELECTOR TROUBLE [CHART 1]



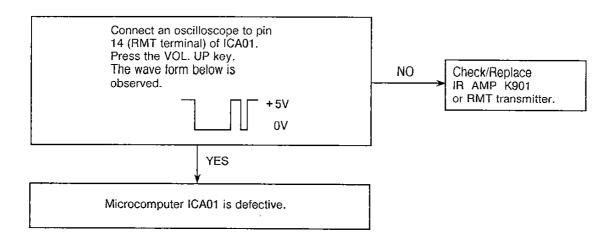
## [CHART 2] Microcomputer (ICA01) Operation Check

NOTE: Before checking Microcomputer, check that control buttons and their connection work properly.

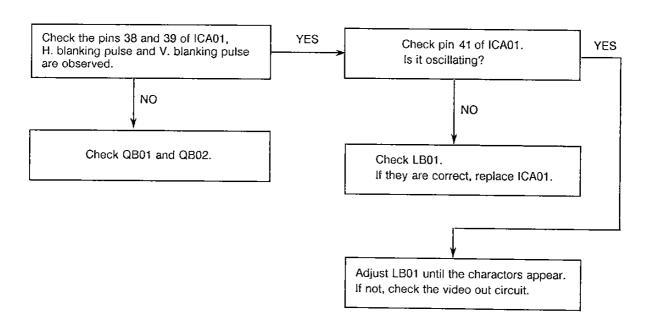


### [CHART 3] Remote Control Operation Check

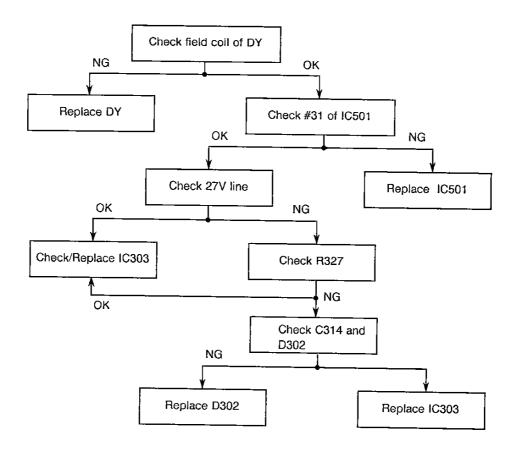
Note: Before checking RMT operation, check that key operation on TV set is proper.



[CHART 4] On Screen Display Operation Check



### 7. NO VERT. SCAN (ONE HORIZ. LINE RASTER)



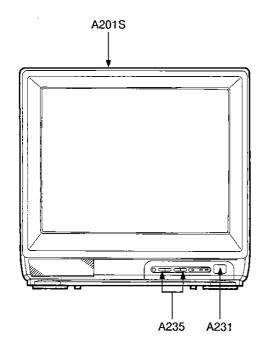
### 8. OUT OF VERT. SYNC. AND HORIZ. SYNC.

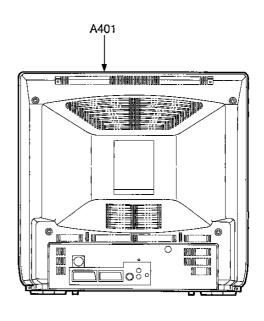
Check/Replace Sync Circuit pin 33 of IC501.

### 9. OUT OF HORIZ. SYNC.

Check/Replace Horiz. OSC Circuit and Horiz. AFC Circuit connected to Pins 36, 37 and 38 of IC501. Check/Replace IC501.

# CABINET REPLACEMENT PARTS LIST





Location No.	Part No.	Description
A201S	23418571	Front Cover
A231	23443465	Button, POWER
A235	23443466	Button, UP-DOWN
A401	23423519	Back Cover
A411	23998604	Label, Model No., B/C
A420	23838432	Ornament, Trim
A421	23838433	Ornament, Tuner
A701	23523662	Carton Box
A702	23934241	Packing, Bottom
A703	23934242	Packing, Top
A710	23998605	Label, Model No., Carton
Y101	23994859	Owner's Manual



# CHASSIS REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 2 OF THIS MANUAL.

**CAUTION:** The international hazard symbols in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2. Do not degrade the safety of the receiver through improper servicing.

NOTICE: The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.

### ABBREVIATIONS:

Capacitors....... CD : Ceramic Disk PF : Plastic Film EL : Electrolytic Resistors........ CF : Carbon Film CC : Carbon Composition MF : Metal Film OMF : Oxide Metal Film VR : Variable Resistor FR : Fusible Resistor (All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location	D N-	<u>_</u>
No.	Part No.	Description
CAPACITOR	IS	
C101	24212102	CD, 1000pF, ±10%
C102	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
C103	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
C104	24206228	EL, 0.22μF, 50V
C105	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
C107	24212102	CD, 1000pF, ±10%
C108	24085031	EL, 1μF, ±20%, 25V,
		Non-Polar
C109	24633101	EL, 100μF, 16V
C111	24633470	EL, 47μF, 16V
C112	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
C162	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
C163	24212102	CD, 1000pF, ±10%
C164	24212102	CD, 1000pF, ±10%
C165	24212102	CD, 1000pF, ±10%
C167	24212102	CD, 1000pF, ±10%
C171	24436220	CD, 22pF
C172	24212102	CD, 1000pF, ±10%
C201	24636100	EL, 10μ <b>F</b> , 50V
C202	24795101	EL, 100μF, 25V
C203	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
C204	24797220	EL, 22μF, 50V
C205	24636478	EL, 0.47μF, 50V
C208	24212102	CD, 1000pF, ±10%
C209	24232103	CD, 0.01μF, +80%, -20%
C210	24636100	EL, 10μF, 50V
C211	24212561	CD, 560pF, ±10%
C212	24636010	EL, 1μF, 50V
C213	24550104	PF, 0.1μF, 63V
C214	24633101	EL, 100μF, 16V
C240	24530474	PF, $0.47\mu$ F, $\pm 10\%$ , $63V$
C301	24636229	EL, 2.2μF, 50V
C302	24212152	CD, 1500pF, ±10%
C303	24617912	EL, $2.2\mu$ F, $\pm 10\%$ , $50$ V
C304	24212102	CD, 1000pF, ±10%
C307	24232103	CD, 0.01μF, +80%, -20%
C312	24593243	PF, 0.024μF
C313	24755101	EL, 100μF, 35V
C314	24796102	EL, 1000μF, 35V
C315	24214221	CD, 220pF, ±10%, 500V

Location No.	Part No.	Description
C316	24667332	EL, 3300μF, ±20%, 25V
C317	24617912	EL, $2.2\mu$ F, $\pm 10\%$ , $50$ V
C318	24082049	PF, 0.047μF, 100V
C319	24693104	PF, 0.1μF, 100V
C321	24214561	CD, 560pF, ±10%, 500V
C328	24212272	CD, 2700pF, ±10%
C368	24530104	PF, $0.1\mu$ F, $\pm 10\%$ , 63V
C402	24353241	CD, 240pF
C403	24636339	EL, 3.3μF, 50V
C405	24593203	PF, 0.02μF
C406	24593203	PF, 0.02μF
C407	24593243	PF, 0.024μF
C408	24636100	EL, 10μF, 50V
C409	24232103	CD, 0.01μF, +80%, -20%
C412	24550182	PF, 1800pF, 63V
C413	24550182	PF, 1800pF, 63V
C414	24212471	CD, 470pF, ±10%
C416	24214271	CD, 270pF, ±10%, 500V
<b>⚠</b> C440	24095916	PF, 9100pF, 1600V
C441	24214221	CD, 220pF, ±10%, 500V
C443	24214221	CD, 220pF, ±10%, 500V
C445	24095903	PF, 0.056μF, ±10%, 250V
C447	24644479	EL, 4.7μF, 250V
C448	24795102	EL, 1000μF, 25V
C449	24794471	EL, 470μF, 16V
C451	24640908	EL, 33μF, ±20%, 160V
<b>⚠ C463</b>	24212222	CD, 2200pF, ±10%
C465	24095755	PF, 0.47μF, 200V
C502	24636100	EL, 10μF, 50V
C503	24436101	CD, 100pF
C504	24436101	CD, 100pF
C505	24550273	PF, 0.027μF, 63V
C506	24232103	CD, 0.01μF, +80%, -20%
C507	24530103	PF, 0.01μF, ±10%, 63V
C508	24085028	EL, 2.2µF, 25V, Non-Polar
C509	24797220	EL, 22μF, 50V
C510	24232103	CD, 0.01μF, +80%, -20%
C511	24232103	CD, 0.01μF, +80%, -20%
C512	24353200	CD, 20pF
C513	24353330	CD, 33pF
C515	24636220	EL, 22μF, 50V

Location No.         Part No.         Description           C516         24530104         PF, 0.1μF, ±10%, 63V           C517         24530104         PF, 0.1μF, ±10%, 63V	
No. C516 24530104 PF, 0.1μF, ±10%, 63V	
$[ (51) $ 24530104 FF, 0.1 $\mu$ F, $\pm 10\%$ , 634	
	n%
C519 24232103 CD, 0.01μF, +80%, -20 C520 24636478 EL, 0.47μF, 50V	0 /0
C520 24636478 EL, 0.47μΓ, 50V C521 24530474 PF, 0.47μF, ±10%, 63V	,
C523 24530474 PF, $0.47\mu$ F, $\pm 10\%$ , $63$ V C524 24232103 CD, $0.01\mu$ F, $\pm 80\%$ , $\pm 20$	
	U 70
C527	n%
C528 24232103 Cb, 0.01µ1, +30 %, -20 C530 24796220 EL, 22µF, 35V	0 /6
l	
C532 24436330 CD, 33pF C533 24436330 CD, 33pF	
C534	
	00/
C539 24232103 CD, 0.01μF, +80%, -26	U70
C540 24633100 EL, 10μF, 16V	
C601 24436470 CD, 47pF	
C602 24436470 CD, 47pF	•••
C603 24232103 CD, $0.01\mu$ F, $+80\%$ , $-20$	0%
C604 24212272 CD, 2700pF, ±10%	
C605 24232103 CD, $0.01\mu$ F, $+80\%$ , $-20$	0%
C606 24353470 CD, 47pF	
C610 24232103 CD, $0.01\mu$ F, $+80\%$ , $-20$	
C611 24232103 CD, $0.01\mu$ F, $+80\%$ , $-26$	0%
C660 24085031 EL, $1\mu$ F, $\pm 20\%$ , 25V,	i
Non-Polar	
C661 24636100 EL, 10μF, 50V	
C662 24636100 EL, 10μF, 50V	
C663 24797470 EL, 47μF, 50V	
C664 24636010 EL, 1μF, 50V	
C665 24796221 EL, 220μF, 35V	
C666 24550104 PF, 0.1μF, 63V	
C667 24795471 EL, 470μF, 25V	
2 1, 00 11	
C668 24636478 EL, 0.47μF, 50V	
	ļ
C668 24636478 EL, 0.47μF, 50V	
C668 24636478 EL, 0.47μF, 50V C669 24550682 PF, 6800pF, 63V	
C668 24636478 EL, 0.47μF, 50V C669 24550682 PF, 6800pF, 63V C670 24634220 EL, 22μF, 25V	
C668 24636478 EL, 0.47μF, 50V C669 24550682 PF, 6800pF, 63V C670 24634220 EL, 22μF, 25V C697 24550224 PF, 0.22μF, 63V	
C668 24636478 EL, 0.47μF, 50V C669 24550682 PF, 6800pF, 63V C670 24634220 EL, 22μF, 25V C697 24550224 PF, 0.22μF, 63V C698 24636479 EL, 4.7μF, 50V	50V
C668       24636478       EL, $0.47\mu$ F, 50V         C669       24550682       PF, 6800pF, 63V         C670       24634220       EL, $22\mu$ F, 25V         C697       24550224       PF, $0.22\mu$ F, 63V         C698       24636479       EL, $4.7\mu$ F, 50V         C699       24634470       EL, $47\mu$ F, 25V	
C668       24636478       EL, $0.47\mu$ F, 50V         C669       24550682       PF, 6800pF, 63V         C670       24634220       EL, $22\mu$ F, 25V         C697       24550224       PF, $0.22\mu$ F, 63V         C698       24636479       EL, $4.7\mu$ F, 50V         C699       24634470       EL, $47\mu$ F, 25V         C801       24098999       PF, $0.1\mu$ F, $\pm 20\%$ , AC25         C802       24098999       PF, $0.1\mu$ F, $\pm 20\%$ , AC25	0V
C668         24636478         EL, $0.47\mu$ F, 50V           C669         24550682         PF, 6800pF, 63V           C670         24634220         EL, $22\mu$ F, 25V           C697         24550224         PF, $0.22\mu$ F, 63V           C698         24636479         EL, $4.7\mu$ F, 50V           C699         24634470         EL, $47\mu$ F, 25V           C801         24098999         PF, $0.1\mu$ F, ±20%, AC25           C802         24098999         PF, $0.1\mu$ F, ±20%, AC25           C805         24094656         CD, 2200pF, ±20%, AC	60V 400V
C668         24636478         EL, $0.47\mu$ F, 50V           C669         24550682         PF, 6800pF, 63V           C670         24634220         EL, $22\mu$ F, 25V           C697         24550224         PF, $0.22\mu$ F, 63V           C698         24636479         EL, $4.7\mu$ F, 50V           C699         24634470         EL, $47\mu$ F, 25V           C801         24098999         PF, $0.1\mu$ F, ±20%, AC25           C802         24098999         PF, $0.1\mu$ F, ±20%, AC25           C805         24094656         CD, 2200pF, ±20%, AC           C806         24094656         CD, 2200pF, ±20%, AC	60V 400V 400V
C668         24636478         EL, $0.47\mu$ F, 50V           C669         24550682         PF, 6800pF, 63V           C670         24634220         EL, $22\mu$ F, 25V           C697         24550224         PF, $0.22\mu$ F, 63V           C698         24636479         EL, $4.7\mu$ F, 50V           C699         24634470         EL, $47\mu$ F, 25V           C801         24098999         PF, $0.1\mu$ F, $\pm 20\%$ , AC25           C802         24098999         PF, $0.1\mu$ F, $\pm 20\%$ , AC25           C805         24094656         CD, 2200pF, $\pm 20\%$ , AC           C806         24094656         CD, 2200pF, $\pm 20\%$ , AC	60V 400V 400V 250V
C668         24636478         EL, $0.47\mu$ F, 50V           C669         24550682         PF, 6800pF, 63V           C670         24634220         EL, $22\mu$ F, 25V           C697         24550224         PF, $0.22\mu$ F, 63V           C698         24636479         EL, $4.7\mu$ F, 50V           C699         24634470         EL, $47\mu$ F, 25V           C801         24098999         PF, $0.1\mu$ F, $\pm 20\%$ , AC25           C802         24098999         PF, $0.1\mu$ F, $\pm 20\%$ , AC25           C805         24094656         CD, 2200pF, $\pm 20\%$ , AC           C806         24094656         CD, 2200pF, $\pm 20\%$ , AC           C815         24092281         CD, 4700pF, $\pm 20\%$ , AC	60V 400V 400V 250V 250V
C668         24636478         EL, $0.47μF$ , $50V$ C669         24550682         PF, $6800pF$ , $63V$ C670         24634220         EL, $22μF$ , $25V$ C697         24550224         PF, $0.22μF$ , $63V$ C698         24636479         EL, $47μF$ , $50V$ C699         24634470         EL, $47μF$ , $25V$ C801         24098999         PF, $0.1μF$ , $±20%$ , AC25           C802         24098999         PF, $0.1μF$ , $±20%$ , AC           C805         24094656         CD, $2200pF$ , $±20%$ , AC           C806         24094656         CD, $2200pF$ , $±20%$ , AC           C815         24092281         CD, $4700pF$ , $±20%$ , AC           C816         24092281         CD, $4700pF$ , $±20%$ , AC           C817         24092281         CD, $4700pF$ , $±20%$ , AC	60V 400V 400V 250V 250V 250V
C668         24636478         EL, $0.47\mu$ F, 50V           C669         24550682         PF, 6800pF, 63V           C670         24634220         EL, $22\mu$ F, 25V           C697         24550224         PF, $0.22\mu$ F, 63V           C698         24636479         EL, $47\mu$ F, 50V           C699         24634470         EL, $47\mu$ F, 25V           C801         24098999         PF, $0.1\mu$ F, ±20%, AC25           C802         24098999         PF, $0.1\mu$ F, ±20%, AC           C805         24094656         CD, 2200pF, ±20%, AC           C806         24094656         CD, 2200pF, ±20%, AC           C815         24092281         CD, 4700pF, ±20%, AC           C816         24092281         CD, 4700pF, ±20%, AC           C817         24092281         CD, 4700pF, ±20%, AC           C818         24092281         CD, 4700pF, ±20%, AC	60V 400V 400V 250V 250V 250V 250V
C668         24636478         EL, $0.47\mu$ F, 50V           C669         24550682         PF, 6800pF, 63V           C670         24634220         EL, $22\mu$ F, 25V           C697         24550224         PF, $0.22\mu$ F, 63V           C698         24636479         EL, $47\mu$ F, 50V           C699         24634470         EL, $47\mu$ F, 25V           C801         24098999         PF, $0.1\mu$ F, ±20%, AC25           C802         24098999         PF, $0.1\mu$ F, ±20%, AC25           C805         24094656         CD, 2200pF, ±20%, AC           C806         24094656         CD, 2200pF, ±20%, AC           C815         24092281         CD, 4700pF, ±20%, AC           C816         24092281         CD, 4700pF, ±20%, AC           C817         24092281         CD, 4700pF, ±20%, AC           C818         24092281         CD, 4700pF, ±20%, AC           C818         24096871         EL, 120μF, ±20%, 400V	60V 400V 400V 250V 250V 250V 250V
C668         24636478         EL, $0.47\mu$ F, 50V           C669         24550682         PF, 6800pF, 63V           C670         24634220         EL, $22\mu$ F, 25V           C697         24550224         PF, $0.22\mu$ F, 63V           C698         24636479         EL, $4.7\mu$ F, 50V           C699         24634470         EL, $47\mu$ F, 25V           C801         24098999         PF, $0.1\mu$ F, ±20%, AC25           C802         24098999         PF, $0.1\mu$ F, ±20%, AC25           C805         24094656         CD, 2200pF, ±20%, AC           C806         24094656         CD, 2200pF, ±20%, AC           C815         24092281         CD, 4700pF, ±20%, AC           C816         24092281         CD, 4700pF, ±20%, AC           C817         24092281         CD, 4700pF, ±20%, AC           C818         24092281         CD, 4700pF, ±20%, AC           C820         24086871         EL, 120μF, ±20%, 400V           C821         24436101         CD, 100pF	60V 400V 400V 250V 250V 250V 250V
C668         24636478         EL, $0.47\mu$ F, 50V           C669         24550682         PF, 6800pF, 63V           C670         24634220         EL, $22\mu$ F, 25V           C697         24550224         PF, $0.22\mu$ F, 63V           C698         24636479         EL, $4.7\mu$ F, 50V           C699         24634470         EL, $47\mu$ F, 25V           C801         24098999         PF, $0.1\mu$ F, ±20%, AC25           C802         24098999         PF, $0.1\mu$ F, ±20%, AC25           C805         24094656         CD, 2200pF, ±20%, AC           C806         24094656         CD, 2200pF, ±20%, AC           C815         24092281         CD, 4700pF, ±20%, AC           C816         24092281         CD, 4700pF, ±20%, AC           C817         24092281         CD, 4700pF, ±20%, AC           C818         24092281         CD, 4700pF, ±20%, AC           C818         24092281         CD, 4700pF, ±20%, AC           C820         24086871         EL, 120 $\mu$ F, ±20%, 400V           C821         24436101         CD, 100pF           C822         24636100         EL, 10 $\mu$ F, 50V	60V 400V 400V 250V 250V 250V 250V
C668 24636478 EL, 0.47μF, 50V C669 24550682 PF, 6800pF, 63V C670 24634220 EL, 22μF, 25V C697 24550224 PF, 0.22μF, 63V C698 24636479 EL, 4.7μF, 50V C699 24634470 EL, 47μF, 25V C801 24098999 PF, 0.1μF, ±20%, AC25 C802 24098999 PF, 0.1μF, ±20%, AC25 C805 24094656 CD, 2200pF, ±20%, AC C806 24094656 CD, 2200pF, ±20%, AC C815 24092281 CD, 4700pF, ±20%, AC C816 24092281 CD, 4700pF, ±20%, AC C817 24092281 CD, 4700pF, ±20%, AC C818 24092281 CD, 4700pF, ±20%, AC C819 CB20 24086871 EL, 120μF, ±20%, 400V C821 24436101 CD, 100pF C822 24636100 EL, 10μF, 50V C823 24550682 PF, 6800pF, 63V	60V 400V 400V 250V 250V 250V 250V
C668 24636478 EL, 0.47μF, 50V C669 24550682 PF, 6800pF, 63V C670 24634220 EL, 22μF, 25V C697 24550224 PF, 0.22μF, 63V C698 24636479 EL, 4.7μF, 50V C699 24634470 EL, 47μF, 25V C801 24098999 PF, 0.1μF, ±20%, AC25 C802 24098999 PF, 0.1μF, ±20%, AC25 C805 24094656 CD, 2200pF, ±20%, AC C806 24094656 CD, 2200pF, ±20%, AC C815 24092281 CD, 4700pF, ±20%, AC C816 24092281 CD, 4700pF, ±20%, AC C817 24092281 CD, 4700pF, ±20%, AC C818 24092281 CD, 4700pF, ±20%, AC C820 24086871 EL, 120μF, ±20%, 400V C821 24436101 CD, 100pF C822 24636100 EL, 10μF, 50V C823 24550682 PF, 6800pF, 63V C824 24630747 EL, 22μF, ±20%, 25V	60V 400V 400V 250V 250V 250V 250V
C668 24636478 EL, $0.47\mu$ F, 50V C669 24550682 PF, 6800pF, 63V C670 24634220 EL, $22\mu$ F, 25V C697 24550224 PF, $0.22\mu$ F, 63V C698 24636479 EL, $4.7\mu$ F, 50V C699 24634470 EL, $4.7\mu$ F, 50V C801 24098999 PF, $0.1\mu$ F, $\pm 20\%$ , AC25 C802 24098999 PF, $0.1\mu$ F, $\pm 20\%$ , AC25 C805 24094656 CD, 2200pF, $\pm 20\%$ , AC C815 24092281 CD, 4700pF, $\pm 20\%$ , AC C816 24092281 CD, 4700pF, $\pm 20\%$ , AC C817 24092281 CD, 4700pF, $\pm 20\%$ , AC C818 24092281 CD, 4700pF, $\pm 20\%$ , AC C818 24092281 CD, 4700pF, $\pm 20\%$ , AC C818 24092281 CD, 4700pF, $\pm 20\%$ , AC C820 24086871 EL, $120\mu$ F, $\pm 20\%$ , AO C821 24436101 CD, $100\mu$ F C822 24636100 EL, $10\mu$ F, 50V C823 24550682 PF, 6800pF, 63V C824 24630747 EL, $22\mu$ F, $\pm 20\%$ , 25V C825 24212102 CD, $1000\mu$ F, $\pm 10\%$	60V 400V 400V 250V 250V 250V 250V
C668         24636478         EL, $0.47\mu$ F, 50V           C669         24550682         PF, 6800pF, 63V           C670         24634220         EL, $22\mu$ F, 25V           C697         24550224         PF, $0.22\mu$ F, 63V           C698         24636479         EL, $4.7\mu$ F, 50V           C699         24634470         EL, $47\mu$ F, 25V           C801         24098999         PF, $0.1\mu$ F, ±20%, AC25           C802         24098999         PF, $0.1\mu$ F, ±20%, AC25           C805         24094656         CD, 2200pF, ±20%, AC           C815         24092281         CD, 4700pF, ±20%, AC           C815         24092281         CD, 4700pF, ±20%, AC           C816         24092281         CD, 4700pF, ±20%, AC           C817         24092281         CD, 4700pF, ±20%, AC           C818         24092281         CD, 4700pF, ±20%, AC           C820         24086871         EL, 120μF, ±20%, 400V           C821         24436101         CD, 100pF           C822         24636100         EL, 10μF, 50V           C823         24550682         PF, 6800pF, 63V           C824         24630747         EL, 22μF, ±20%, 25V           C825         24212102         CD, 1000pF, ±10% <td>60V 400V 400V 250V 250V 250V 250V 7</td>	60V 400V 400V 250V 250V 250V 250V 7
C668         24636478         EL, $0.47\mu$ F, $50V$ C669         24550682         PF, $6800p$ F, $63V$ C670         24634220         EL, $22\mu$ F, $25V$ C697         24550224         PF, $0.22\mu$ F, $63V$ C698         24636479         EL, $4.7\mu$ F, $50V$ C699         24634470         EL, $47\mu$ F, $25V$ C801         24098999         PF, $0.1\mu$ F, $\pm 20\%$ , AC25           C802         24098999         PF, $0.1\mu$ F, $\pm 20\%$ , AC25           C805         24094656         CD, $2200p$ F, $\pm 20\%$ , AC           C815         24092281         CD, $4700p$ F, $\pm 20\%$ , AC           C816         24092281         CD, $4700p$ F, $\pm 20\%$ , AC           C817         24092281         CD, $4700p$ F, $\pm 20\%$ , AC           C818         24092281         CD, $4700p$ F, $\pm 20\%$ , AC           C820         24086871         EL, $120\mu$ F, $\pm 20\%$ , 400V           C821         24436101         CD, $100p$ F           C822         24636100         EL, $10\mu$ F, $50V$ C823         24550682         PF, $6800p$ F, $63V$ C824         24630747         EL, $22\mu$ F, $\pm 20\%$ , $25V$ C825         24212102         CD, $1000p$ F, $\pm 10\%$	50V 400V 400V 250V 250V 250V 250V 7
C668         24636478         EL, $0.47μF$ , $50V$ C669         24550682         PF, $6800pF$ , $63V$ C670         24634220         EL, $22μF$ , $25V$ C697         24550224         PF, $0.22μF$ , $63V$ C698         24636479         EL, $47μF$ , $50V$ C699         24634470         EL, $47μF$ , $50V$ C801         24098999         PF, $0.1μF$ , $±20%$ , AC25           C802         24098999         PF, $0.1μF$ , $±20%$ , AC25           C805         24094656         CD, $2200pF$ , $±20%$ , AC           C806         24094656         CD, $2200pF$ , $±20%$ , AC           C815         24092281         CD, $4700pF$ , $±20%$ , AC           C816         24092281         CD, $4700pF$ , $±20%$ , AC           C817         24092281         CD, $4700pF$ , $±20%$ , AC           C818         24092281         CD, $4700pF$ , $±20%$ , AC           C820         24086871         EL, $120μF$ , $±20%$ , AO           C821         244336101         CD, $100pF$ C822         24636100         EL, $10μF$ , $50V$ C823         24550682         PF, $6800pF$ , $63V$ C824         24630747         EL, $22μF$ , $±20%$ , $25V$ C825 <td>50V 400V 400V 250V 250V 250V 250V 7</td>	50V 400V 400V 250V 250V 250V 250V 7
C668         24636478         EL, $0.47\mu$ F, 50V           C669         24550682         PF, 6800pF, 63V           C670         24634220         EL, $22\mu$ F, 25V           C697         24550224         PF, $0.22\mu$ F, 63V           C698         24636479         EL, $4.7\mu$ F, 50V           C699         24634470         EL, $47\mu$ F, 25V           C801         24098999         PF, $0.1\mu$ F, $\pm 20\%$ , AC25           C802         24098999         PF, $0.1\mu$ F, $\pm 20\%$ , AC25           C805         24094656         CD, $2200p$ F, $\pm 20\%$ , AC           C815         24092281         CD, $4700p$ F, $\pm 20\%$ , AC           C815         24092281         CD, $4700p$ F, $\pm 20\%$ , AC           C816         24092281         CD, $4700p$ F, $\pm 20\%$ , AC           C817         24092281         CD, $4700p$ F, $\pm 20\%$ , AC           C818         24092281         CD, $4700p$ F, $\pm 20\%$ , AC           C820         24086871         EL, $120\mu$ F, $\pm 20\%$ , 400V           C821         2436101         CD, $100p$ F           C822         24636100         EL, $10\mu$ F, $50V$ C823         24550682         PF, $6800p$ F, $63V$ C824         24630747         EL, $22\mu$ F, $\pm 20\%$ , $25V$ C825	50V 400V 400V 250V 250V 250V 250V 7

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Location	Part No.	Description
No.	Tall No.	Bescription
C831	24436331	CD, 330pF
C832	24593822	PF, 8200pF
C833	24442181	CD, 180pF, ±10%, 2kV
C834	24086953	EL, 220μF, ±20%, 160V
C835	24797220	EL, 22μF, 50V
C836	24214331	CD, 330pF, ±10%, 500V
C837	24795222	EL, 2200μF, 25V
C901	24644479	EL, 4.7μF, 250V
C902	24095923	PF, 4700pF, 1600V
CA01	24212331	CD, 330pF, ±10%
CA02	24232103	CD, $0.01\mu F$ , $+80\%$ , $-20\%$
CA07	24212102	CD, 1000pF, ±10%
CA08	24232103	CD, 0.01μF, +80%, -20%
CA09		CD, 0.01μF, +80%, -20% EL, 47μF, 16V
	24794470	
CA10	24232103	CD, 0.01μF, +80%, -20%
CA11	24530472	PF, 4700pF, ±10%, 63V
CA12	24212561	CD, 560pF, ±10%
CA13	24633100	EL, 10μ <b>F</b> , 16V
CA14	24794470	EL, 47μF, 16V
CA15	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
CA16	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
CA17	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
CA18	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
CA19	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
CA20	24636010	EL, 1μF, 50V
CA21	24436391	CD, 390pF
CA22	24436221	CD, 220pF
CA23	24530104	PF, 0.1μF, ±10%, 63V
CA24	24530104	
1		PF, 0.1μF, ±10%, 63V
CA25	24636229	EL, 2.2μF, 50V
CA26	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
CA28	24530104	PF, 0.1μF, ±10%, 63V
CA30	24636229	EL, 2.2μF, 50V
CA31	24232103	CD, 0.01μF, +80%, -20%
CA32	24794471	EL, 470μF, 16V
CA33	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
CA36	24550104	PF, 0.1μF, 63V
CA40	24232103	CD, 0.01µF, +80%, -20%
CB01	24212101	CD, 100pF, ±10%
CF01	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
CF02	24436271	CD, 270pF
CF03	24436271	CD, 270pF
CF04	24212222	CD, 2200pF, ±10%
CF05	24436471	CD, 2200pF, ±1076 CD, 470pF
CF06	24633220	EL, 22μF, 16V
CF07	24353050	CD, 5pF, ±0.25pF
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CF09	24353360	CD, 36pF
CF10	24530102	PF, 1000pF, ±10%, 63V
CF11	24353470	CD, 47pF
CF12	24232103	CD, 0.01μF, +80%, -20%
CF13	24636010	EL, 1μF, 50V
CF14	24530104	PF, 0.1μF, ±10%, 63V
CF15	24530222	PF, 2200pF, ±10%, 63V
CF17	24353271	CD, 270pF
CF18	24353820	CD, 82pF
CF19	24232103	CD, 0.01μF, +80%, -20%
CF20	24633100	EL, 10μF, 16V
CF21	24530332	PF, 3300pF, ±10%, 63V
CF22	24530332	PF, 3300pF, ±10%, 63V
CF23	24633100	EL, 10μF, 16V
CF82	24633470	EL, 47μF, 16V
CH01	24636010	EL, 1μF, 50V
CH02	24636010	EL, 1μF, 50V
CH02	24636010	EL, 1μF, 50V EL, 1μF, 50V
01100	24030010	LL, 1μΓ, 50 γ

Location	n Part No.	Description	
No.	Tare No.	Description	
CHOA	24626040	FL 4 5 501	
CH04 CH05	24636010		
CH06	24636010 24636010	EL, 1μF, 50V EL, 1μF, 50V	ı
CH07	24636100	EL, 1με, 50V EL, 10με, 50V	ļ
CM05	24232103	• "	
CM07	24232103		ł
CM08	24232103	CD, 0.01µF, +80%, -20%	ı
CN02	24436270	CD, 27pF	ļ
CN07	24436270	CD, 27pF	ı
CN10	24436101	CD, 100pF	
CV01	24636229	EL, 2.2μF, 50V	1
CV03	24636100	EL, 10μF, 50V	ı
CV04	24636229	EL, 2.2μF, 50V	1
CV06 CV07	24636100	EL, 10μF, 50V	I
CV07	24636100	EL, 10μF, 50V	ı
CV10	24636229 24636100	EL, 2.2μF, 50V EL, 10μF, 50V	١
CV11	24636229	EL, 10μF, 50V EL, 2.2μF, 50V	ı
CV13	24636100	EL, 10μF, 50V	l
CV15	24636010	EL, 1µF, 50V	
CV16	24232103	CD, 0.01µF, +80%, -20%	l
CV17	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$	ı
CV18	24633100	EL, 10μF, 16V	l
CV22	24633100	EL, 10μF, 16V	ı
CV24	24633471	EL, 470μF, 16V	l
CV27	24633100	EL, 10μF, 16V	ı
CV29 CV31	24085028	EL, 2.2μF, 25V, Non-Polar	ľ
CX02	24633471 24530474	EL, 470μF, 16V	l
CX02	24530474	PF, 0.47μF, ±10%, 63V PF, 0.47μF, ±10%, 63V	l
CX04	24530474		l
] 57.5	24000474	11, 0.47 $\mu$ F, $\pm$ 10%, 63V	l
RESISTO	RS		
R101	24366152	CF, 1500 ohm	l
R103	24366152	CF, 1500 ohm	
R104	24366103	CF, 10k ohm	l
R105	24366104	CF, 100k ohm	
R106	24366562	CF, 5600 ohm	1
R107	24366562	CF, 5600 ohm	
R108	24366222	CF, 2200 ohm	
R109 R110	24366332	CF, 3300 ohm	
<u> </u>	24366103 24383560	CF, 10k ohm	
R115	24366101	OMF, 56 ohm, 2W CF, 100 ohm	
R116	24366101	CF, 100 onm CF, 1k ohm	
R117	24366221	CF, 220 ohm	
R118	24552151	OMF, 150 ohm, 1/2W	
R125	24366101	CF, 100 ohm	
R151	24066953	VR, 5k ohm, 1/10W	
R152	24066946	VR, 1M ohm, 1/10W	
R161	24366131	CF, 130 ohm	
R162 R163	24366102	CF, 1k ohm	
R164	24366562 24552101	CF, 5600 ohm	
R166	24366270	OMF, 100 ohm, 1/2W CF, 27 ohm	
R167	24366680	CF, 68 ohm	
R168	24366562	CF, 5600 ohm	
R171	24366102	CF, 1k ohm	
R172	24366184	CF, 180k ohm	
R202	24366101	CF, 100 ohm	
R203	24366182	CF, 1800 ohm	
R204 R205	24366152	CF, 1500 ohm	
R208	24366392 24366101	CF, 3900 ohm	
.,200		CF, 100 ohm	

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ı	Location	Part No.	Description
[	No.		
1	R209	24366103	CF, 10k ohm
1	R210	24366203	4-7
1	R211	24366622	
1	R212	24366103	
	R213	24366101	
l	R214	24366182	
ſ	R215	24366152	, 017711
ı	R216	24366333	
1	R217 R218	24366101	,
ı	R219	24366472 24366472	
ı	R220	24366753	,
	R221	24366564	
ı	R222	24366751	
ı	R223	24366103	_ , , , , , , , , , , , , , , , , , , ,
	R224	24366333	CF, 33k ohm
1	R225	24366132	CF, 1300 ohm
	R226	24366104	CF, 100k ohm
l	R227	24366105	CF, 1M ohm
l	R228	24366104	
l	R229 R230	24366303	/ ( ( ( ( ( ( (
l	R230 R231	24366102 24366103	CF, 1k ohm
	R232	24366103 24366473	CF, 10k ohm CF, 47k ohm
1	R233	24366302	
	R234	24366102	, == + + = + + + + + + + + + + + + + + +
	R235	24366473	,
	R236	24366103	,
ı	R237	24366224	CF, 220k ohm
l	R241	24366101	CF, 100 ohm
l	R242	24366153	CF, 15k ohm
	R243	24366183	CF, 18k ohm
	R252	24066598	VR, 2k ohm, 1/10W
	R253	24066598	VR, 2k ohm, 1/10W
	R255 R301	24066601	VR, 20k ohm, 1/10W
	R302	24366301 24366244	CF, 300 ohm
	R303	24366203	CF, 240k ohm CF, 20k ohm
	R304	24366102	CF, 20k onm CF, 1k ohm
	R305	24366161	CF, 160 ohm
	R306	24366471	CF, 470 ohm
	R309	24366102	CF, 1k ohm
	R311	24552242	OMF, 2400 ohm, 1/2W
	R316	24552821	OMF, 820 ohm, 1/2W
	R317	24383271	OMF, 270 ohm, 2W
	R318	24366153	CF, 15k ohm
	R319	24381392	OMF, 3900 ohm, 1/2W
	R320 R321	24366103	CF, 10k ohm
	R322	24366133 24366364	CF, 13k ohm
	R323	24366364 24322129	CF, 360k ohm
	R325	24522129	OMF, 1.2 ohm, 1W OMF, 1200 ohm, 1/2W
	R327	24547689	FR, 6.8 ohm, 1W
_	R329	24552472	OMF, 4700 ohm, 1/2W
	R333	24366471	CF, 470 ohm
	R351	24066602	VR, 50k ohm, 1/10W
	R377	24366184	CF, 180k ohm
	R378	24366364	CF, 360k ohm
	R380	24366153	CF, 15k ohm
	R402 R403	24366273	CF, 27k ohm
	n403 R404	24366302	CF, 3k ohm
	R405	24552432 24366511	OMF, 4300 ohm, 1/2W CF, 510 ohm
	R407	24366161	CF, 160 ohm
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Location No.	Part No.	Description
R408	24366682	CF, 6800 ohm
R411	24366391 24366121	CF, 390 ohm CF, 120 ohm
R412 <u>∧</u> R416	24366121	
R419	24366510	
R420	24009951	OMF, 1k ohm, 1W
R421	24366105	CF, 1M ohm
R440	24376243	CF. 24k ohm. 1/2W
R441	24552103	OMF, 10k ohm, 1/2W
R442	24383102	OMF, 1k ohm, 2W
<u>∧</u> R444	24007768	Cement, 15 ohm, 10W
R445	24552330	OMF, 33 ohm, 1/2W
R448	24984279	
R451	24066601 24069547	VR, 20k ohm, 1/10W
R452 R501	24069547	VR, 5k ohm, 0.08W
R502	24300021	CF, 820 ohm CF, 330k ohm
R503	24366202	
R504	24366471	CF, 470 ohm
R505	24366822	
R507	24366822	CF, 8200 ohm
R508	24366822 24366821	CF, 820 ohm
R509	24366203	CF, 20k ohm
R510	24366101	CF, 100 ohm
R511	24366562	
R512	24366152	CF, 1500 ohm
R513	24366152	CF, 1500 ohm
R515	24366221	
R516	24366221	CF, 220 ohm
R517 R521	24366221 24366562	CF, 220 ohm CF, 5600 ohm
R521	24360185	CF, 1.8M ohm, 1/8W
R523	24366102	CF, 1k ohm
R524	24366103	CF, 10k ohm
R525	24366103	
R526	24366122	CF. 1200 ohm
R527	24366122	CF, 1200 ohm
<u> </u>	24007642	Cement, 5600 ohm, 5W
R531	24366102	CF, 1k ohm
R532		CF, 2400 ohm
R533	24366132	CF, 1300 ohm CF, 100k ohm, 1/2W
R534		
R535 R536	24366302 24376104	CF, 3k ohm CF, 100k ohm, 1/2W
R536 R537	24366132	CF, 1300 ohm
R538	24366302	CF, 3k ohm
R539	24366132	CF, 1300 ohm
R540	24376104	CF, 100k ohm, 1/2W
R541	24366821	CF, 820 ohm
R542	24366271	CF, 270 ohm
R543	24366512	CF, 5100 ohm
R544	24366101	CF, 100 ohm
R545	24366101	CF, 100 ohm
R547	24366471	CF, 470 ohm
R548	24366471	CF, 470 ohm
R549 R551	24366471 24066955	CF, 470 ohm
R557	24066598	VR, 1k ohm, 1/10W VR, 2k ohm, 1/10W
R558	24066598	VR, 2k ohm, 1/10W
R559	24066598	VR, 2k ohm, 1/10W
R564	24366101	CF, 100 ohm
R565	24366101	CF, 100 ohm
R567	24366101	CF, 100 ohm
R570	24366103	CF, 10k ohm

Location	Part No.	Description
No.		
R571	24366103	CF, 10k ohm
R572	24366103	CF, 10k ohm
R573	24366104	
R591	24009957	OMF, 10k ohm, 2W
R592	24009957	OMF, 10k ohm, 2W
R593	24009957	OMF, 10k ohm, 2W
R601	24366681	CF, 680 ohm
R610	24366124	· ·
R611	24366103	
R618	24366101	,
R619	24366222 24366562	CF, 2200 ohm
R621 R660	24366102	
R661	24366332	CF, 3300 ohm
R662	24552181	
R664	24366103	
R665	24366339	•
R666	24366752	CF, 7500 ohm
R667	24366105	CF, 1M ohm
R668	24366152	CF, 1500 ohm
R669	24552331	OMF, 330 ohm, 1/2W
R690	24366273	•
R691	24366223	CF, 22k ohm
R692	24366104	,
R693	24366103	CF, 10k ohm
R694	24366152	CF, 1500 ohm
R695 R696	24366222 24366223	CF, 2200 ohm CF, 22k ohm
R697	24366223	CF, 22k ohm CF, 22k ohm
R698	24366472	CF, 4700 ohm
R699	24366332	CF, 3300 ohm
R801	24004914	CC, 5.6M ohm, 1/2W
<u></u> <b>∩</b> R802	24007932	Cement, 6.2 ohm, 10W
R810	24377334	CF, 330k ohm, 1W
R814	24366823	CF, 82k ohm
R815	24366221	CF, 220 ohm
R816	24367122	CF, 1200 ohm, ±2%
R817	24321398	OMF, 0.39 ohm, 1/2W
R818	24384203	OMF, 20k ohm, 3W
R819	24366689	CF, 6.8 ohm
R820	24366102	CF, 1k ohm
<u>∧</u> R821 R822	24007778 24366390	Cement, 180 ohm, 7W
R823	24365390 24367622	CF, 39 ohm CF, 6200 ohm +2%
R824	24366123	CF, 6200 ohm, ±2% CF, 12k ohm
∧ R825	24531620	FR, 62 ohm, 1/2W
⚠ R826	24007552	Cement, 8200 ohm, 5W
R828	24366102	CF, 1k ohm
R829	24382473	OMF, 47k ohm, 1W
R830	24366272	CF, 2700 ohm
R831	24366103	CF, 10k ohm
R832	24383331	OMF, 330 ohm, 2W
R836	24322228	OMF, 0.22 ohm, 1W
<u> </u>	24000900	FR, 0.47 ohm, ±10%, 1W
R838	24366392	CF, 3900 ohm
R851	24066954	VR, 2k ohm, 1/10W
R890 R901	24000630	PTC Thermistor, Dual
R901 R902	24946272 24946272	CC, 2700 ohm, ±10%, 1/2W
R903	24946272	CC, 2700 ohm, ±10%, 1/2W CC, 2700 ohm, ±10%, 1/2W
<u>∧</u> R920	24000906	FR, 2.4 ohm, 2W
RA01	24366102	CF, 1k ohm
RA02	24366103	CF, 10k ohm
RA03	24366102	CF, 1k ohm
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Location	Part No.	Description
No.		
RA04	24366103 24366101	CF, 10k ohm
RA05	24366101	CF, 100 ohm
RA06		CF, 100 ohm
RA07	24366101	
RA08 RA09		CF, 1k ohm
RA10	24366103 24366102	
RA11	24366472	
RA12	24366101	
RA13	24366472	CF, 4700 ohm
RA14	24366102	CF, 1k ohm
RA15		CF, 22k ohm
RA17 RA19	24366102 24366103	
RA20	24366103	
RA22	24366103	•
RA23	24366471	
RA24	24366102	CF, 1k ohm
RA25	24366103	
RA27	24366392	
RA28 RA30	24366471 24366271	
RA33	24366103	CF, 270 onm CF, 10k ohm
RA35	24366103	CF, 10k ohm
RA36	24366102	-
RA37	24366102	
RA38	24366153	CF, 15k ohm
RA39	24366153	CF, 15k ohm
RA40 RA41	24366473	CF, 47k ohm
RA42	24366153 24366473	
RA43	24366153	
RA44	24366102	CF, 1k ohm
RA45	24366223	
RA46	24366333	CF, 33k ohm
RA48	24366333	
RA49 RA60	24366333	
RA61	24366333 24360225	,
RA62	24366223	CF, 22k ohm
RA64	24946226	CC, 22kM ohm, ±10%, 1/2W
RA65	24366223	
RA67	24366273	CF, 27k ohm
RA68	24366123	CF, 12k ohm
RA69 RA70	24366823	CF, 82k ohm
RA73	24366153 24366223	CF, 15k ohm CF, 22k ohm
RA74	24366223	CF, 22k Ohm
RA75	24366102	CF, 1k ohm
RA78	24366103	CF, 10k ohm
RA79	24366152	CF, 1500 ohm
RA87 RA88	24366103	CF, 10k ohm
RA88 RA97	24366102 24383183	CF, 1k ohm OMF, 18k ohm, 2W
RB01	24366333	CF, 33k ohm
RB03	24366103	CF, 10k ohm
RB04	24366103	CF, 10k ohm
RB05	24366332	CF, 3300 ohm
RB06	24366473	CF, 47k ohm
RF01	24366102	CF, 1k ohm
RF02 RF03	24366152 24366331	CF, 1500 ohm CF, 330 ohm
RF04	24366104	CF, 100k ohm
RF05	24366152	CF, 1500 ohm
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Location No.	Part No.	Description
RF06 RF07	24366152 24366122 24366154	CF, 1500 ohm
RF09	24366154	CF, 1200 ohm CF, 150k ohm
RF10	24366682	,
RF11	24366104	
RF12	24366682	CF, 6800 ohm
RF13	24366822	CF, 8200 ohm
RF14	24300103	OF, TOR OHM
RF15 RF17	24366333 24366223	
RF18	24366103	,
RF19	24366223	CF, 22k ohm
RF21	24366152	CF, 1500 ohm
RF22	24366152	
RF23	24366152	
RF24	24366152	CF, 1500 ohm
RF26	24366102	CF, 1k ohm
RF27	24366103	
RF28 RF29	24366223 24366103	
RF30	24366103	
RF31	24366102	• • • • • • • • • • • • • • • • • • • •
RF32	24366102	CF, 1k ohm
RF33	24366153	CF, 15k ohm
RF34	24366103	CF, 10k ohm
RF35	24366103	
RF36	24366103	=: ,
RF37 RF38	24366103	
RF39	24366102 24366333	CF, 1k ohm CF, 33k ohm
RF40	24366223	CF, 22k ohm
RF41	24366682	CF, 6800 ohm
RF42	24366103	CF, 10k ohm
RF43	24366103	CF, 10k ohm
<b>⚠ RF80</b>	24531100	FR, 10 ohm, 1/2W
RF81	24383123	OMF, 12k ohm, 2W
RH01 RH02	24366102 24366152	CF, 1k ohm CF, 1500 ohm
RH03	24366102	CF, 1k ohm
RH04	24366102	CF, 1k ohm
RH05	24366102	CF, 1k ohm
RH06	24366153	CF, 15k ohm
RH07	24366161	CF, 160 ohm
RH08	24366153	CF, 15k ohm
RH09 RH10	24366161	CF, 160 ohm
RH11	24366153 24366161	CF, 15k ohm CF, 160 ohm
RH12	24366102	CF, 160 Shm
RH32	24366332	CF, 3300 ohm
RH33	24366103	CF, 10k ohm
RM07	24366103	CF, 10k ohm
RN02	24366102	CF, 1k ohm
RN05 RN08	24366152	CF, 1500 ohm
RR01	24366103 24366102	CF, 10k ohm CF, 1k ohm
RR06	24366471	CF, 470 ohm
RV01	24366821	CF, 820 ohm
RV02	24366162	CF, 1600 ohm
RV03	24366102	CF, 1k ohm
RV05	24366101	CF, 100 ohm
RV06	24366101	CF, 100 ohm
RV07 RV09	24366102 24366101	CF, 1k ohm
RV10	24366101	CF, 100 ohm CF, 1k ohm
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Location	Part No.	Description
No.		
RV12	24366101	CF, 100 ohm
RV13	24366103	CF, 10k ohm
RV14	24366103	CF, 10k ohm
RV15	24366101	CF, 100 ohm
RV16	24366473	CF, 100 offin CF, 47k ohm
RV17	24366473	CF, 47K ONM
RV18	24366332	CF, 3300 ohm CF, 2200 ohm
RV19	24366222	CF, 2200 ohm
RV20	24366101	CF, 100 ohm
RV22	24366332	CF, 3300 ohm
RV23	24366473	
RV24	24552750 24366331	OMF, 75 ohm, 1/2W CF, 330 ohm
RV25	24366391	CF, 390 ohm
RV26 RV27	24366473	CF, 390 0HM CF, 47k ohm
RV27	24366473	CF, 47k ohm
RV29	24366472	CF, 4700 ohm
RV30		CF, 1k ohm
RV31	24366910	· ·
RV32	24366820	CF, 82 ohm
RV33	24366332	CF, 3300 ohm
RV34	24366473	CF, 47k ohm
RV36	24366104	CF, 100k ohm
RV37	24366473	CF, 47k ohm
RV39	24366910	CF, 91 ohm
RV40	24366560	CF, 56 ohm
RV41	24366103	CF, 10k ohm
RV42	24366750	,
RV43	24366510	CF, 51 ohm
RV44	24366510	CF, 51 ohm
RV45	24366510	CF, 51 ohm
RV46	24366101	CF, 100 ohm
RV47	24366104	-
RV48 RV49	24366102 24366102	CF, 1k ohm CF, 1k ohm
RV60	24366220	CF, 1k ohm CF, 22 ohm
RV61	24366220	CF, 22 ohm
RV62	24366220	•
RV63	24366562	CF, 5600 ohm
RV64	0.4000500	OF F000 - I
RV65	24366562 24366104 24366562	CF, 100k ohm
RV66	24366562	CF, 5600 ohm
RV67	24366562	CF, 5600 ohm
RV68	24366471	CF, 470 ohm
RV69	24366223	CF, 22k ohm
RV70	24366273	CF, 27k ohm
RV71	24366102	CF, 1k ohm
RV72	24366103	CF, 10k ohm
RV73	24366560 24366102	CF, 56 ohm
RX02 RX05	24366102 24366101	CF, 1k ohm CF, 100 ohm
RX08	24366101	CF, 100 ohm
RX10	24366101	CF, 100 01171 CF. 100 ohm
RX13	24366102	CF, 1k ohm
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COILS &	<b>TRANSFORME</b>	RS
L102	23262819	Coil, PIF, TRF1071D
L103	23237987	Coil, Peaking, TRF4100AC
L105	23237993	Coil, Peaking, TRF4339AC
L107	23237987	Coil, Peaking, TRF4100AC
L151	23262813	Coil, IF, TRF1077D
L152	23262813	Coil, IF, TRF1077D
L162	23261986	Coil, RF Choke, TRF9220
L201	23237974	Coil, Peaking, TRF4121AC

Location	Part No.	Description
No.		
L311	23261974	Coil, Choke, HC5-035
L315	23289100	Coil, Peaking, TRF4100AF
L405	23221739	Coil, Choke, TRF9252D
L406	23103859	Coil (Ferrite Bead), TEM2011
L411	23222660	Coil, Linearity, TLN2069
L441	23238934	Coil, Peaking, TRF4109AC
<u> </u>	23227245	Deflection Yoke, YS-58324
L503	23237987	Coil, Peaking, TRF4100AC
L551	23250972	Coil, 1H-Delay Matching, TRF5418D
L590	23289221	Coil, Peaking, TRF4221AF
L601	23237986	Coil, Peaking, TRF4120AC
L651	23232946	Coil, Variable, TRF3073D
L801 L802	23221050 23103859	Coil, RF Choke, TLN1015 Coil (Ferrite Bead), TEM2011
L803	23261975	Coil, Choke, TRF9229
L804	23261975	Coil, Choke, TRF9229
L805	23222694	Coil, Width, TLN2026
L806	23103859	Coil (Ferrite Bead), TEM2011
L807	23222694	Coil, Width, TLN2026
L901	23200779	Coil, Degaussing, TSB-2231
LA01	23238934	Coil, Peaking, TRF4109AC
LA02	23221803	Coil, Choke, TLN3040D
LB01	23262778	Coil, IF, TRF1112
LF01	23237998	Coil, Peaking, TRF4129AC
LF02	23237996	Coil, Peaking, TRF4189AC
LN02	23237996	Coil, Peaking, TRF4189AC
<u></u>	23224983	Transformer, Horiz. Drive, TLN1039
<u> </u>	23236245	Transformer, Flyback, AT2078/21
T801	23211858	Line Filter, TRF3139
<u> </u>	23217074	Transformer, Converter, 47003593
SEMICOND	LICTORE	47003593
	<del>-</del>	10. T54400B
IC101	23318201	IC, T51496P
IC303 IC408	23119548	IC, AN5515
IC660	23318218 23318392	IC, μPC7812H IC, AN5262
IC661	23119668	IC, ANS202 IC, TDA2611A
IC801	23318232	IC, TDA2611A IC, TDA4601
IC807	23318299	IC, L78MR05-FA
ICA01	23319010	IC, M34300-583SP
ICF01	23318486	IC, CF72303
ICF02	23318485	IC, CF70064
ICF09	B0470045	IC, TC4013BAP
ICH01	23119139	IC, AN5862K
ICV01	B0383505	IC, TA8720AN
Q103	23114691	Transistor, BC557A
Q104	23114689	Transistor, BC547A
Q161	A6708871	Transistor, 2SC388ATM
Q201 Q202	23114689 23114691	Transistor, BC547A
Q202 Q203	23114691	Transistor, BC557A Transistor, BC547A
Q204	A6041876	Transistor, BC547A Transistor, 2SK117-GR FA-2
Q205	A6342200	Transistor, 2SC2878-A
Q206	23114689	Transistor, BC547A
Q303B	23035308	Screw, BTB3X8SZN
Q363	23114689	Transistor, BC547A
Q402	A6330069	Transistor, 2SC2482 FA-1
<b>∆</b> Q404	23314375	Transistor, ON4409
Q501	B0379475	Transistor, TA8659AN
Q502	23114691	Transistor, BC557A

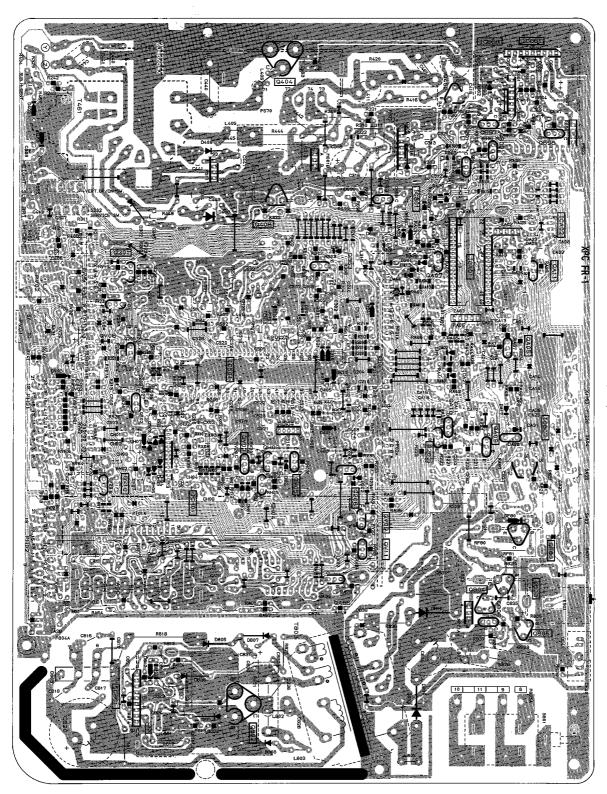
Description   Description			
No.         Q503         23114691         Transistor, BC557A           Q505         23114693         Transistor, BF871           Q507         23114693         Transistor, BC547A           Q507         23114689         Transistor, BC547A           Q508         23114689         Transistor, BC547A           Q510         23114689         Transistor, BC547A           Q514         23114689         Transistor, BC547A           Q697         23114689         Transistor, BC547A           Q698         A6342200         Transistor, BC547A           Q699         23114689         Transistor, BC557A           Q699         23114691         Transistor, BC557A           Q699         23114691         Transistor, BC557A           Q802         23314246         Transistor, BC557A           Q803         23314246         Transistor, SC2230A-Y           Q804         A6547303         Transistor, BC557A           Q805         A6325067         Transistor, BC557B           QA06         23114689         Transistor, BC557A           QA07         23114689         Transistor, BC547A           QA09         23114689         Transistor, BC547A           QA01         23114689		Part No.	Description
Q505         23114693         Transistor, BF871           Q506         23114683         Transistor, BC547A           Q508         23114683         Transistor, BC547A           Q509         23114683         Transistor, BC547A           Q510         23114683         Transistor, BC547A           Q514         23114688         Transistor, BC547A           Q697         23114689         Transistor, BC547A           Q698         A6342200         Transistor, BC557A           Q699         23114681         Transistor, BC557A           Q802         23314261         Transistor, CN4409           Q803         23314261         Transistor, BC557A           Q804         A6547303         Transistor, SCC2203A-Y           Q805         A6325067         Transistor, SC557A           Q806         A6325067         Transistor, BC557B           QA06         23114689         Transistor, BC547A           QA07         23114689         Transistor, BC547A           QA06         23114689         Transistor, BC547A           QA07         23114689         Transistor, BC547A           QA11         23114689         Transistor, BC547A           QA11         23114689         Transistor, BC5	No.		
Q505         23114693         Transistor, BF871           Q506         23114683         Transistor, BC547A           Q508         23114683         Transistor, BC547A           Q509         23114683         Transistor, BC547A           Q510         23114683         Transistor, BC547A           Q514         23114688         Transistor, BC547A           Q697         23114689         Transistor, BC547A           Q698         A6342200         Transistor, BC557A           Q699         23114681         Transistor, BC557A           Q802         23314261         Transistor, CN4409           Q803         23314261         Transistor, BC557A           Q804         A6547303         Transistor, SCC2203A-Y           Q805         A6325067         Transistor, SC557A           Q806         A6325067         Transistor, BC557B           QA06         23114689         Transistor, BC547A           QA07         23114689         Transistor, BC547A           QA06         23114689         Transistor, BC547A           QA07         23114689         Transistor, BC547A           QA11         23114689         Transistor, BC547A           QA11         23114689         Transistor, BC5	0502	22114601	Transister BCEE7A
0506         23114689         Transistor, BC547A           0507         23114683         Transistor, BF871           0508         23114689         Transistor, BC547A           0510         23114689         Transistor, BC547A           0514         23114689         Transistor, BC547A           0516         23114689         Transistor, BC547A           0697         23114689         Transistor, BC547A           0698         A6342200         Transistor, BC557A           0802         23314376         Transistor, SC557A           0803         23314246         Transistor, CSC22023 LF-4           0804         A6547303         Transistor, SC557B           0805         A6325067         Transistor, SC557B           0A06         23114689         Transistor, BC547A           0A06         23114689         Transistor, BC547A           0A07         23114689         Transistor, BC547A           0A01         23114689         Transistor, BC547A           0A10         23114689         Transistor, BC547A           0A11         23114689         Transistor, BC547A           0A12         23114689         Transistor, BC547A           0F03         23114689         Transistor,			
Q507         23114693         Transistor, BF871           Q508         23114693         Transistor, BC547A           Q510         23114693         Transistor, BC547A           Q514         23114689         Transistor, BC547A           Q516         23114689         Transistor, BC547A           Q697         23114691         Transistor, BC547A           Q698         A6342200         Transistor, SC52878-A           Q699         23114691         Transistor, QSC223 LF-4           Q802         23314376         Transistor, DN4409           Q803         23314246         Transistor, QSC230A-Y           Q806         A6547303         Transistor, BC557A           Q806         23114546         Transistor, BC547A           QA06         23114689         Transistor, BC547A           QA06         23114689         Transistor, BC547A           QA07         23114689         Transistor, BC547A           QA08         23114689         Transistor, BC547A           QA09         23114689         Transistor, BC547A           QA11         23114689         Transistor, BC547A           QB01         23114689         Transistor, BC547A           QF03         23114689         Transist	ī		•
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QF07         23114689         Transistor, BC547A           QF08         23114689         Transistor, BC547A           QF10         23114689         Transistor, BC547A           QF11         23114689         Transistor, BC547A           QF80         23314374         Transistor, BD945           QH03         23114689         Transistor, BC547A           QH04         23114689         Transistor, BC547A           QH05         23114689         Transistor, BC547A           QV02         23114689         Transistor, BC547A           QV03         23114689         Transistor, BC547A           QV05         23114689         Transistor, BC547A           QV06         23114689         Transistor, BC547A           QV07         23114689         Transistor, BC547A           QV09         23114689         Transistor, BC547A           QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, BC547A<	1 _		
QF08         23114689         Transistor, BC547A           QF10         23114689         Transistor, BC547A           QF11         23114689         Transistor, BC547A           QF80         23314374         Transistor, BD945           QH03         23114689         Transistor, BC547A           QH04         23114689         Transistor, BC547A           QH05         23114689         Transistor, BC547A           QV02         23114689         Transistor, BC547A           QV03         23114689         Transistor, BC547A           QV04         23114689         Transistor, BC547A           QV05         23114689         Transistor, BC547A           QV07         23114689         Transistor, BC547A           QV09         23114689         Transistor, BC547A           QV09         23114689         Transistor, BC547A           QV10         23114689         Transistor, BC547A           QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, BC547A           QV11         A6342200         Transistor, BC547A           QV11         A6342200         Transistor, BC547A           QV11         A6342200         Transistor, BC547A<	_		
QF10         23114689         Transistor, BC547A           QF11         23114689         Transistor, BC547A           QF80         23314374         Transistor, BD945           QH03         23114689         Transistor, BC547A           QH04         23114689         Transistor, BC547A           QH05         23114689         Transistor, BC547A           QV02         23114691         Transistor, BC547A           QV03         23114689         Transistor, BC547A           QV05         23114689         Transistor, BC547A           QV06         23114689         Transistor, BC547A           QV07         23114689         Transistor, BC547A           QV09         23114632         Transistor, BC547A           QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, BC547A<			-
QF80         23314374         Transistor, BD945           QH03         23114689         Transistor, BC547A           QH04         23114689         Transistor, BC547A           QH05         23114689         Transistor, BC547A           QV02         23114691         Transistor, BC547A           QV03         23114689         Transistor, BC547A           QV06         23114689         Transistor, BC547A           QV07         23114689         Transistor, BC547A           QV09         23114689         Transistor, BC547A           QV10         23114689         Transistor, BC547A           QV10         23114689         Transistor, BC547A           QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, BC547A<	QF10	23114689	
OH03         23114689         Transistor, BC547A           QH04         23114689         Transistor, BC547A           QH05         23114689         Transistor, BC547A           QV02         23114691         Transistor, BC547A           QV03         23114689         Transistor, BC547A           QV05         23114689         Transistor, BC547A           QV06         23114689         Transistor, BC547A           QV07         23114689         Transistor, BC547A           QV09         23114689         Transistor, BC547A           QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, BC547A	QF11	23114689	Transistor, BC547A
QH04         23114689         Transistor, BC547A           QH05         23114689         Transistor, BC547A           QV02         23114691         Transistor, BC547A           QV03         23114689         Transistor, BC547A           QV05         23114689         Transistor, BC547A           QV06         23114689         Transistor, BC547A           QV07         23114689         Transistor, BC547B           QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, BC547A	QF80	23314374	Transistor, BD945
QH05         23114689         Transistor, BC547A           QV02         23114691         Transistor, BC557A           QV03         23114689         Transistor, BC547A           QV05         23114689         Transistor, BC547A           QV06         23114689         Transistor, BC547A           QV07         23114689         Transistor, BC547A           QV09         23114689         Transistor, BC547A           QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, BC547A	_		*
QV02         23114691         Transistor, BC557A           QV03         23114689         Transistor, BC547A           QV05         23114689         Transistor, BC547A           QV06         23114689         Transistor, BC547A           QV07         23114689         Transistor, BC547B           QV10         23114689         Transistor, BC547B           QV11         A6342200         Transistor, BC547A           QV11         A6342200         Transistor, 2SC2878-A           D201         23115599         Diode, 1N4148           D202         23115599         Diode, 1N4148           D2041         A7150041         Diode, BYD33J           D305         23118479         Diode, BYD33J           D314         A7117205         Diode, Zener, 04AZ12X           D315         A7116715         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, 1N4148           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ12Y           D408         23118479         Diode, RU4Z           D406         23118479         Diode, BYD33J           D408         23118479         Diode, BYD33J			
OV03         23114689         Transistor, BC547A           QV05         23114689         Transistor, BC547A           QV06         23114689         Transistor, BC547A           QV07         23114689         Transistor, BC547A           QV09         23114689         Transistor, BC547B           QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, 2SC2878-A           D201         23115599         Diode, 1N4148           D202         23115599         Diode, 1N4148           D2041         A7150041         Diode, 1SS104           D302         23118479         Diode, BYD33J           D305         23118479         Diode, BYD33J           D314         A7117205         Diode, Zener, 04AZ12X           D315         A7116715         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, 1N4148           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ20Y           D403         A7117215         Diode, RW33J           D406         23118479         Diode, BYD33J           D408         23118479         Diode, BYD33J			
QV05         23114689         Transistor, BC547A           QV06         23114689         Transistor, BC547A           QV07         23114689         Transistor, BC547A           QV09         23114632         Transistor, BC547B           QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, 2SC2878-A           D201         23115599         Diode, 1N4148           D202         23115599         Diode, 1N4148           D2041         A7150041         Diode, 1SS104           D302         23118479         Diode, BYD33J           D305         23118479         Diode, BYD33J           D314         A7117205         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, TN4148           D401         A7116925         Diode, Zener, 04AZ7.5Y           D402         A7117715         Diode, Zener, 04AZ9.1Z           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118479         Diode, BYD33J           D408         23118559         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y			•
QV06         23114689         Transistor, BC547A           QV07         23114689         Transistor, BC547A           QV09         23114632         Transistor, BC547B           QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, 2SC2878-A           D201         23115599         Diode, 1N4148           D202         23115599         Diode, 1N4148           D241         A7150041         Diode, 1SS104           D302         23118479         Diode, BYD33J           D305         23118479         Diode, BYD33J           D314         A7117205         Diode, Zener, 04AZ12X           D315         A7116715         Diode, Zener, 04AZ9.1Z           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ12Y           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148 <tr< td=""><td></td><td></td><td></td></tr<>			
QV07         23114689         Transistor, BC547A           QV09         23114632         Transistor, BC547B           QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, 2SC2878-A           D201         23115599         Diode, 1N4148           D202         23115599         Diode, 1N4148           D241         A7150041         Diode, 1SS104           D302         23118479         Diode, BYD33J           D305         23118479         Diode, BYD33J           D314         A7117205         Diode, Zener, 04AZ12X           D315         A7116715         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, Zener, 04AZ9.1Z           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ9.1Z           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148			•
QV09         23114632         Transistor, BC547B           QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, 2SC2878-A           D201         23115599         Diode, 1N4148           D202         23115599         Diode, 1N4148           D241         A7150041         Diode, 1SS104           D302         23118479         Diode, BYD33J           D305         23118479         Diode, BYD33J           D314         A7117205         Diode, Zener, 04AZ12X           D315         A7116715         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, 1N4148           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ9.1Z           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148           D595         23115599         Diode, 1N4148			-
QV10         23114689         Transistor, BC547A           QV11         A6342200         Transistor, 2SC2878-A           D201         23115599         Diode, 1N4148           D202         23115599         Diode, 1N4148           D241         A7150041         Diode, 1SS104           D302         23118479         Diode, BYD33J           D305         23118479         Diode, BYD33J           D314         A7117205         Diode, Zener, 04AZ12X           D315         A7116715         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, 1N4148           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ9.1Z           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118552         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148           D595         23115599         Diode, 1N4148           D660         23115599         Diode, 1N4148			
QV11         A6342200         Transistor, 2SC2878-A           D201         23115599         Diode, 1N4148           D202         23115599         Diode, 1N4148           D241         A7150041         Diode, 1SS104           D302         23118479         Diode, BYD33J           D305         23118479         Diode, BYD33J           D314         A7117205         Diode, Zener, 04AZ12X           D315         A7116715         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, IN4148           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ20Y           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148           D595         23115599         Diode, 1N4148           D660         23115599         Diode, 1N4148			
D201         23115599         Diode, 1N4148           D202         23115599         Diode, 1N4148           D241         A7150041         Diode, 1SS104           D302         23118479         Diode, BYD33J           D305         23118479         Diode, BYD33J           D314         A7117205         Diode, Zener, 04AZ12X           D315         A7116715         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, 1N4148           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ20Y           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148           D595         23115599         Diode, 1N4148           D660         23115599         Diode, 1N4148			
D241         A7150041         Diode, 1SS104           D302         23118479         Diode, BYD33J           D305         23118479         Diode, BYD33J           D314         A7117205         Diode, Zener, 04AZ12X           D315         A7116715         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, 1N4148           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ20Y           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148           D595         23115599         Diode, 1N4148           D660         23115599         Diode, 1N4148	D201	23115599	1
D302         23118479         Diode, BYD33J           D305         23118479         Diode, BYD33J           D314         A7117205         Diode, Zener, 04AZ12X           D315         A7116715         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, 1N4148           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ20Y           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148           D595         23115599         Diode, 1N4148           D660         23115599         Diode, 1N4148		-	Diode, 1 <b>N</b> 4148
D305         23118479         Diode, BYD33J           D314         A7117205         Diode, Zener, 04AZ12X           D315         A7116715         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, 1N4148           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ20Y           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148           D595         23115599         Diode, 1N4148           D660         23115599         Diode, 1N4148			-
D314         A7117205         Diode, Zener, 04AZ12X           D315         A7116715         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, 1N4148           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ20Y           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148           D595         23115599         Diode, 1N4148           D660         23115599         Diode, 1N4148			-
D315         A7116715         Diode, Zener, 04AZ7.5Y           D367         23115599         Diode, 1N4148           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ20Y           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148           D595         23115599         Diode, 1N4148           D660         23115599         Diode, 1N4148			-
D367         23115599         Diode, 1N4148           D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ20Y           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148           D595         23115599         Diode, 1N4148           D660         23115599         Diode, 1N4148			
D401         A7116925         Diode, Zener, 04AZ9.1Z           D402         A7117715         Diode, Zener, 04AZ20Y           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148           D595         23115599         Diode, 1N4148           D660         23115599         Diode, 1N4148			· · · · · · · · · · · · · · · · · · ·
D402         A7117715         Diode, Zener, 04AZ20Y           D403         A7117215         Diode, Zener, 04AZ12Y           D406         23118479         Diode, BYD33J           D408         23118052         Diode, RU4Z           D410         A7116815         Diode, Zener, 04AZ8.2Y           D593         23115599         Diode, 1N4148           D594         23115599         Diode, 1N4148           D595         23115599         Diode, 1N4148           D660         23115599         Diode, 1N4148			
D403       A7117215       Diode, Zener, 04AZ12Y         D406       23118479       Diode, BYD33J         D408       23118052       Diode, RU4Z         D410       A7116815       Diode, Zener, 04AZ8.2Y         D593       23115599       Diode, 1N4148         D594       23115599       Diode, 1N4148         D595       23115599       Diode, 1N4148         D660       23115599       Diode, 1N4148			
D406       23118479       Diode, BYD33J         D408       23118052       Diode, RU4Z         D410       A7116815       Diode, Zener, 04AZ8.2Y         D593       23115599       Diode, 1N4148         D594       23115599       Diode, 1N4148         D595       23115599       Diode, 1N4148         D660       23115599       Diode, 1N4148			•
D410 A7116815 Diode, Zener, 04AZ8.2Y D593 23115599 Diode, 1N4148 D594 23115599 Diode, 1N4148 D595 23115599 Diode, 1N4148 D660 23115599 Diode, 1N4148			
D593       23115599       Diode, 1N4148         D594       23115599       Diode, 1N4148         D595       23115599       Diode, 1N4148         D660       23115599       Diode, 1N4148		23118052	
D594 23115599 Diode, 1N4148 D595 23115599 Diode, 1N4148 D660 23115599 Diode, 1N4148	_		Diode, Zener, 04AZ8.2Y
D595 23115599 Diode, 1N4148 D660 23115599 Diode, 1N4148			
D660 23115599 Diode, 1N4148			•
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20110000 Dioue, 1141140			
		20110000	5,545, 114,140

Location	Part No.	Description
No.	rait No.	Description
Door		
D696	23115599	Diode, 1N4148
D697 D698	23115599	Diode, 1N4148
D699	23115599	Diode, 1N4148
D803	23115599 23118173	Diode, 1N4148
D805	23118479	Diode, RBV-406M-LFA
D806	23118479	Diode, BYD33J Diode, BYD33J
D807	23118479	Diode, BYD33J
D808	23118736	Diode, BYV96E
D809	23118451	Diode, RU4A
D810	23118479	Diode, BYD33J
D811	23118479	Diode, BYD33J
D812	A7116515	Diode, Zener, 04AZ6.2Y
DA13	23115599	Diode, 1N4148
DA14	23115599	Diode, 1N4148
DA15	23115599	Diode, 1N4148
DA16	23115599	Diode, 1N4148
DA17	23115599	Diode, 1N4148
DA21	23115599	Diode, 1N4148
DA22	23115599	Diode, 1N4148
DA27	23115599	Diode, 1N4148
DA28	23115599	Diode, 1N4148
DA30	23115878	Diode, Zener, μPC574J(L)
DA31	23115599	Diode, 1N4148
DA33	23115599	Diode, 1N4148
DA34	23115599	Diode, 1N4148
DE40	23118969	Diode (LED), MV57124, Red
DE41	23318436	Diode (LED), MV53124A,
DF02	A 7700000	Yellow
DF02	A7288690	Variable Capacitor, 1SV101
DF04	23115599 23115599	Diode, 1N4148
DF05	23115599	Diode, 1N4148 Diode, 1N4148
DF06	23115599	Diode, 1N4148
DF07	23115599	Diode, 1N4148
DF80	A7116415	Diode, Zener, 04AZ5.6Y
DH01	23115599	Diode, 1N4148
DH02	23115599	Diode, 1N4148
DH03	23115599	Diode, 1N4148
DH04	23115599	Diode, 1N4148
DH05	23115599	Diode, 1N4148
DH06	23115599	Diode, 1N4148
DH07	A7116215	Diode, Zener, 04AZ4.7Y
DH08	23115599	Diode, 1N4148
DH11	23115599	Diode, 1N4148
DH12	23115599	Diode, 1N4148
DV01	A7116915	Diode, Zener, 04AZ9.1Y
DV02 DV03	23115599	Diode, 1N4148
DV03	A7116215	Diode, Zener, 04AZ4.7Y
MISCELLAN	FOUS	
		(1-14-
B204 <u>∧</u> F801	23848140	Holder
F801A	23144896 23165102	Fuse, 2.0A
K901	23120370	Fuse Holder Sokcet, CRT, 8P
P661	23365430	Earphone Jack
PF01	23367684	Plug, 11P
PF02	23367677	Plug, 4P
PH01	23365598	21 Pin Connector
PH02	23365598	21 Pin Connector
PV01	23365515	Jack, 4P
PV02	23365428	Jack Phono, 2P
S202	23145542	Switch, Lever, 1C3P
S301	23145682	Switch, Lever, 1C3P
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Location No.	Part No.	Description
 ∖ S801	23145434	Switch, Power, 2C2P
SA01	23145430	Switch, Push, 1C1P
SA02	23145430	Switch, Push, 1C1P
SA03	23145430	Switch, Push, 1C1P
SA04	23145430	Switch, Push, 1C1P
∆ V901A	23902353	Socket, CRT, 10P
		The state of the s
W201	23250879	Delay Line, TRF2084
W661	23151199	Speaker, SPK-1267, 60x70mm, 8 ohm
X401	23153886	Ceramic Resonator, 503kHz, TCR1012
X501	23153979	Crystal, 4.43MHz
X502	23153653	PAL-1H Delay, ED645A-91S
XF01	23153662	Crystal, 55.500MHz
Z101	A5611120	PIF SAW Filter, F1035
Z102	23107876	Ceramic Video Trap, 6 to 6.5MHz, TCF1028
Z601	23107948	Ceramic Filter, 6.0MHz, SFE6.0MBF
ZA01	23153741	Ceramic Resonator, TCR1029
ZA02	24000788	Resistor Block, 4700 ohmx4, 1/8W
ZA03	24094651	Capacitor Block, 100pFx4, 50V
ZF01	23107746	Filter, 3MHz, TEM1010
-		
ZF02	23107746	Filter, 3MHz, TEM1010
ZF03	23107746	Filter, 3MHz, TEM1010
ZF04	23107746	Filter, 3MHz, TEM1010
ZV01	23107849	Ceramic Video Trap,
		4.43MHz, TCF1032
PC BOARD	ASSEMBLIE	S
U101A	23336549	PIF Board, PB0039-1
U101B	23336550	Text Board, PB0039-2
U101C	23336551	A/V Board, PB0039-3
		•
U101D	23336552	H/P Board, PB0039-4
U902A	23336553	Main Board, PB0040
U903A	23336554	CRT Drive Board, PB0041-1
U903B	23336555	Power Board, PB0041-2
PICTURE T	UBE	,
<b>∆</b> V901	A5541139	Picture Tube,
		A51JRU40X(MW), SVC
TUNER		
H001	23121599	Tuner, VHF/UHF, UF749BX1
- 1	AND SET PA	
K902	23120368	Remote Hand Unit, CT-9462
AT01	23304495	Upper Case
AT02	23304496	Lower Case
AT03	70108521	Battery Cover
AT04	70108522	Filter
ST01	23304497	
UT01	23336487	PC Board, PB0519
ZT01	23153736	Ceramic Resonator, CSB455EB20

Location No.	Part No.	Description	
			١

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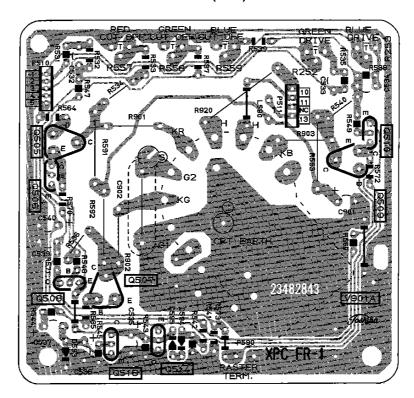


-27 -

- 28 -

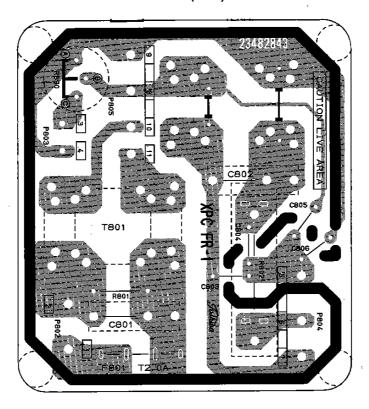
## CRT DRIVE BOARD PB0041-1

BOTTOM (FOIL) SIDE



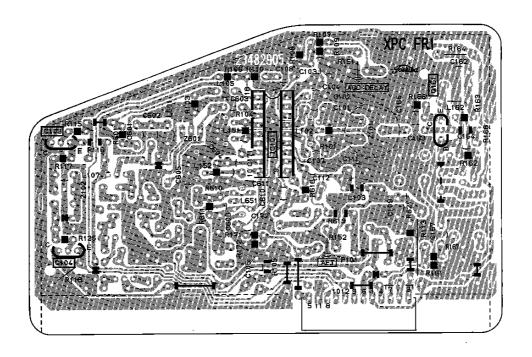
POWER BOARD PB0041-2

BOTTOM (FOIL) SIDE



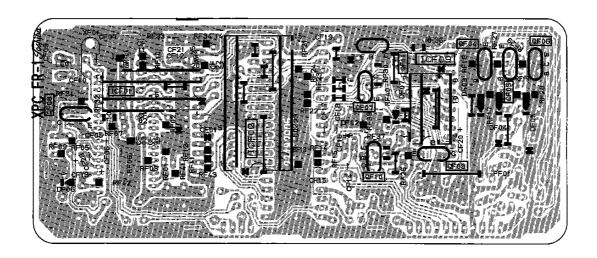
## PIF BOARD PB0039-1

BOTTOM (FOIL) SIDE



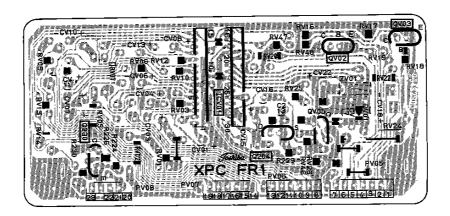
## **TEXT BOARD PB0039-2**

BOTTOM (FOIL) SIDE



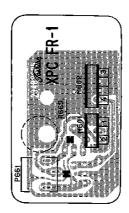
## A/V BOARD PB0039-3

BOTTOM (FOIL) SIDE



## H/P BOARD PB0039-4

BOTTOM (FOIL) SIDE



## TERMINAL VIEW OF TRANSISTORS

① BC327 BC337 BC547A BC547B BC547C BC557A BC557B BC556A



2SK30ATM 2SK117



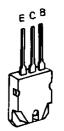
3 BD202



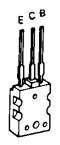
BF8712SD5532SC1569



⑤ 2SC3678 2SC3182N



© 2SD1427 2SD1432

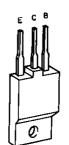


© 2SC2482 2SA1321 2SC2230 2SA1020 2SC2655 2SC752GTM

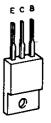


© 2SC388ATM 2SA1015 2SC1959 2SA562TM

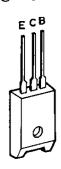


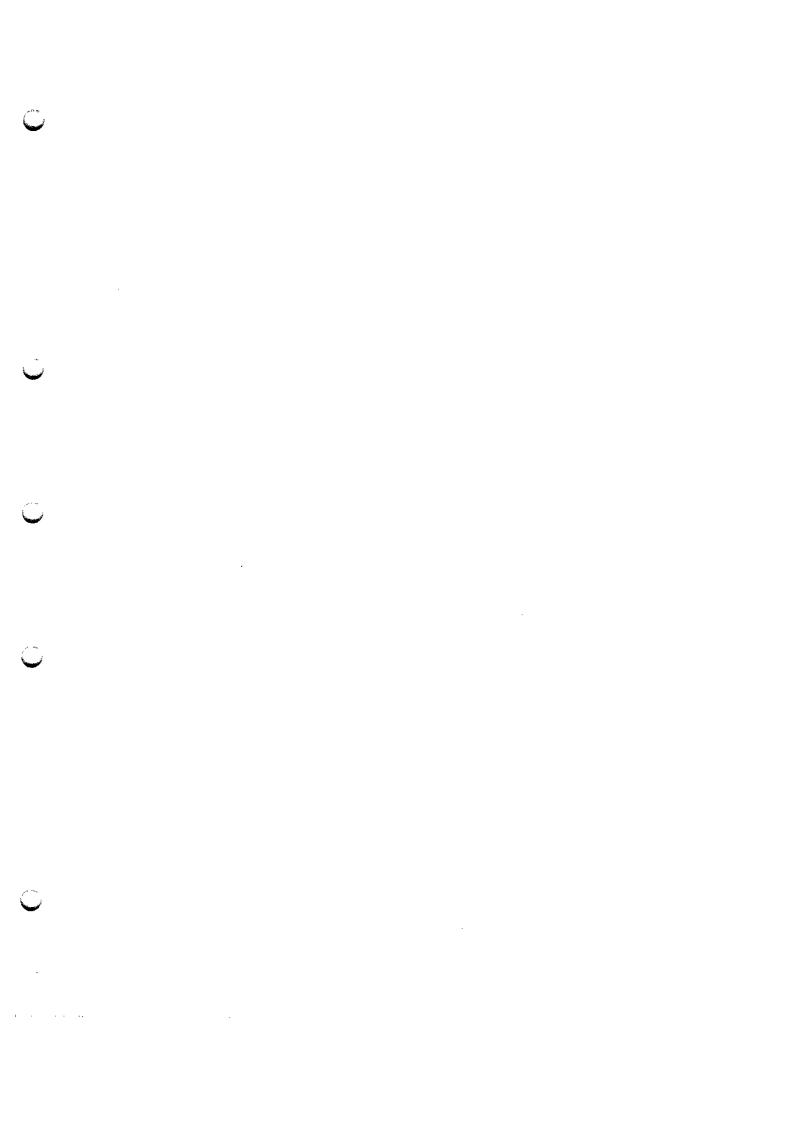


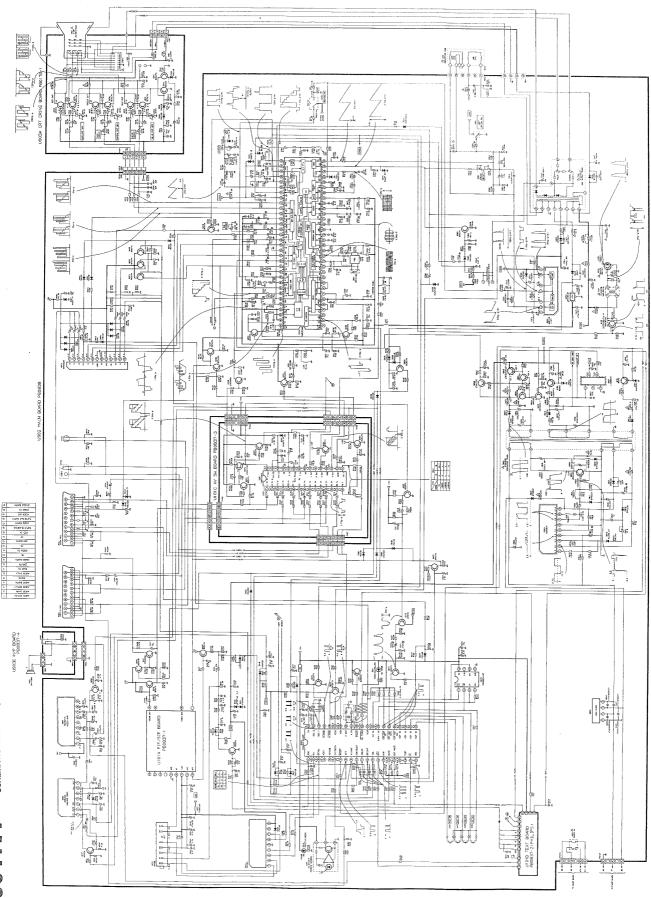
(II) 2SC2023



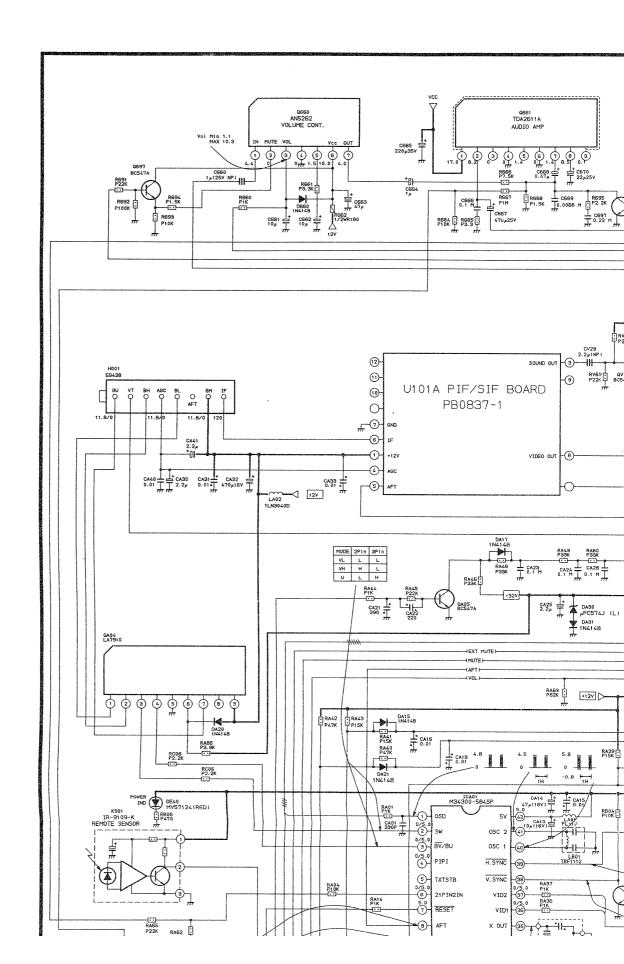
① ON4409



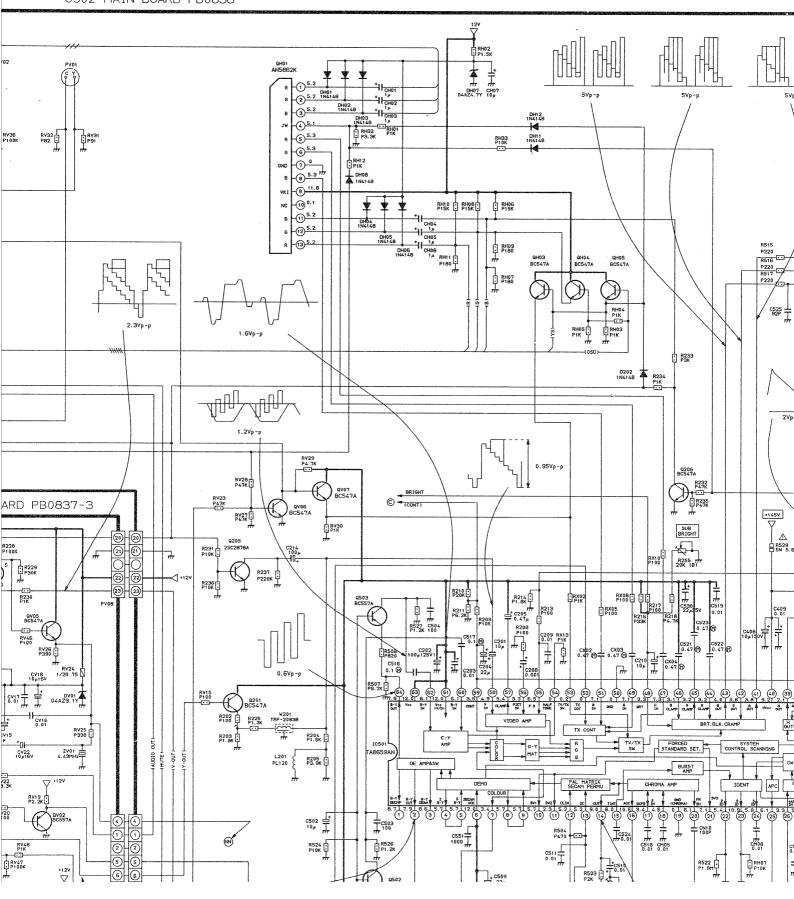


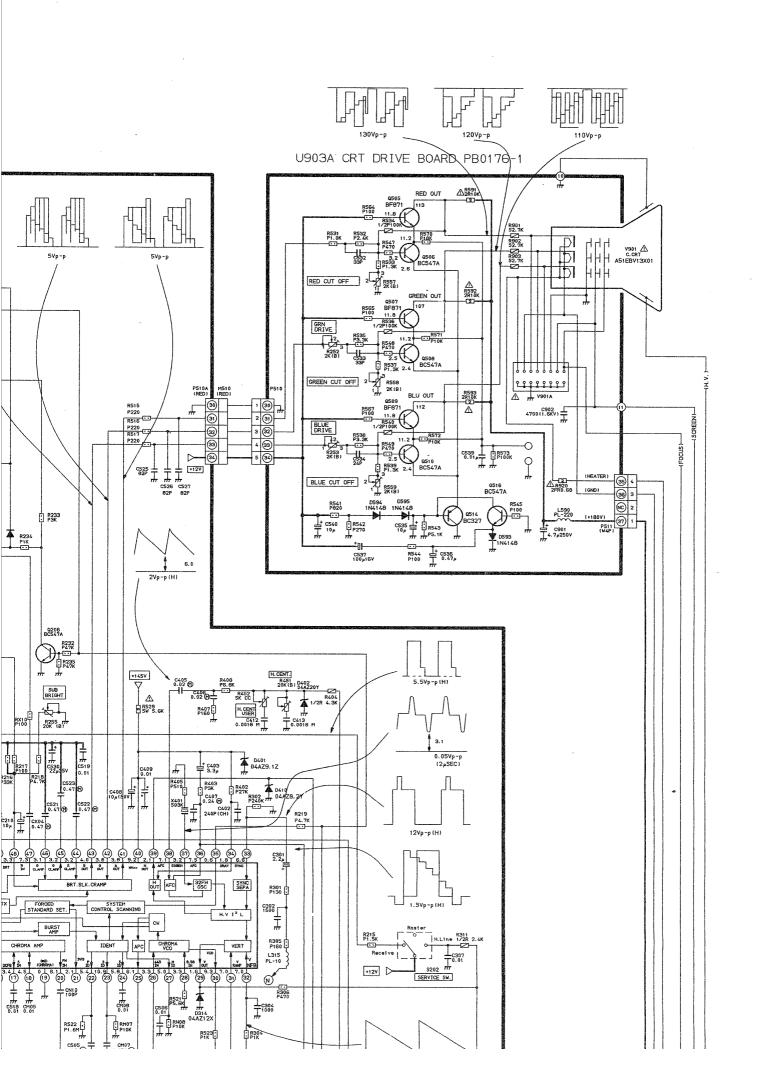


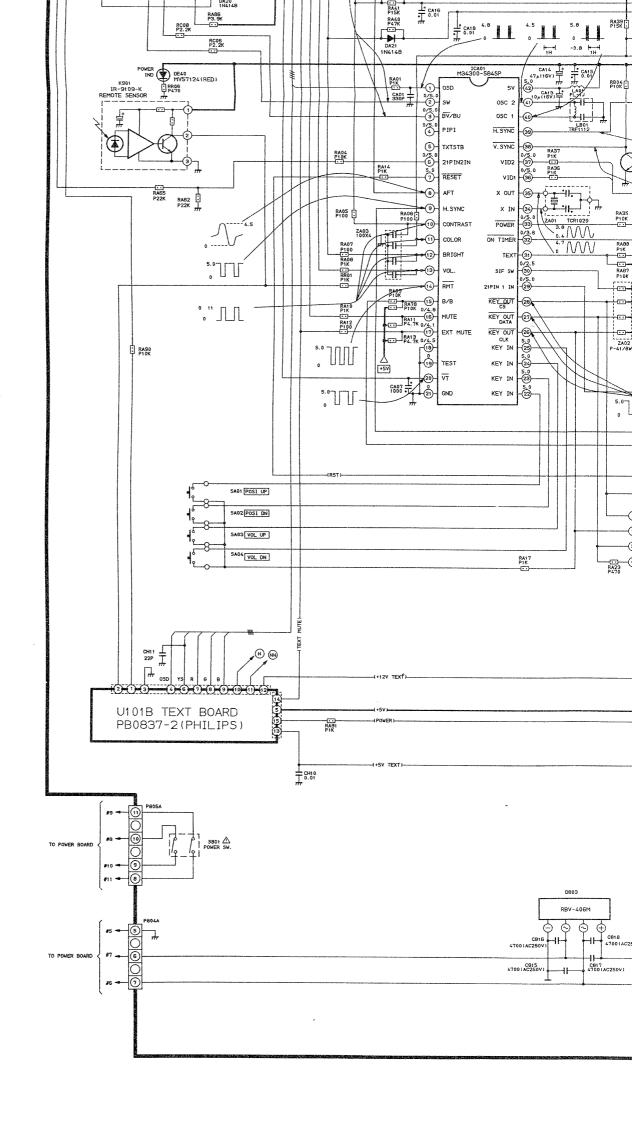
## SCHEMATIC DIAGRAM (1/2)

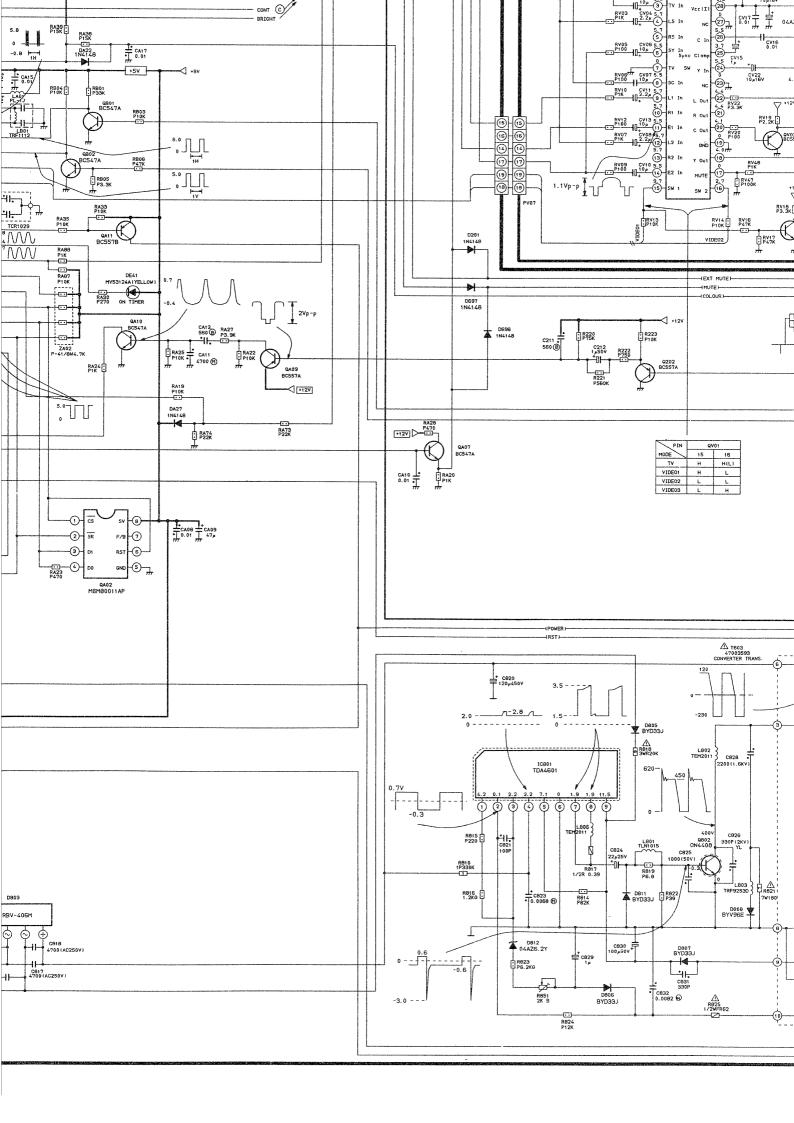


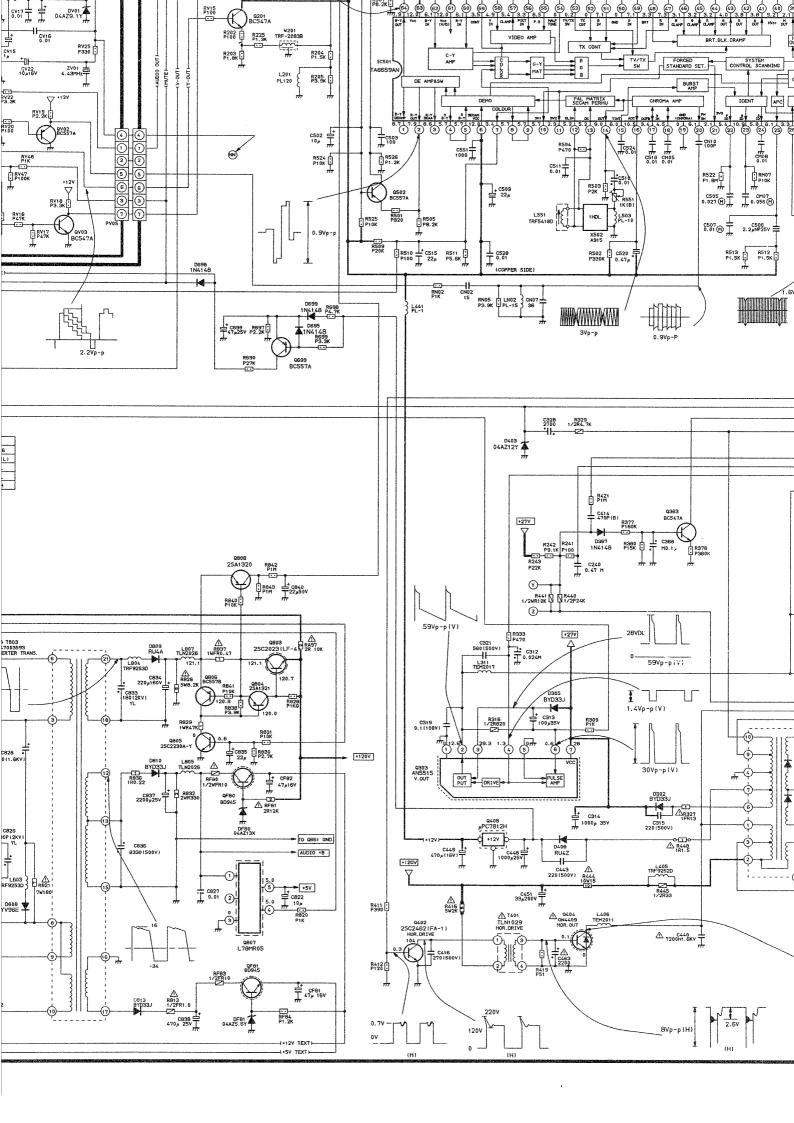
**/**1 (1/2) U903E H/P BOARD PB0837-4 RAPID BLK EARTH RAPID BLANKING AUDIO OUT(L.) SHIELD EARTH AUDIO IN(R) AUDIO EARTH GREEN EARTH AUDIO IN(L.) RED EARTH BLUE IN GREEN IN EARTH VIDEO OUT VIDEO IN ž ž RED IN ž R669 R330 7 8 0.1 C669 R 10.0068 M RV36 P100K RV72 : RV45 E ANGLE 25C2878A 25C2878A 26S98 4.7µ P5.6K P5.6K RV64 RV63 P8739 RV65 P100K RV40 CV24 P56 470<sub>#</sub>16V BY6k DV03 04AZ4.7Y RV68 RV70 RV37 P47K PA.5K U101C AV SW.BOARD PB08 R228 DA30 PCS74J (L)
DA31
DA31
IN4148 R229 P30K DA16 RA70 15K RAG9 D +124 V Out 9 22
Vec (II) 9 22
Vec (II) 9 22
Vec (III) 9 22
Vec (III) 9 24
Vec (III) 9 24
Vec (III) 9 25
Vec (III) 9 T CA19 TCA20 CONT C RA39 RA38 P15K DA22 1N4148 CV22 10µ16V +50 RB01 P33K 999 MUTE (1) 2.7

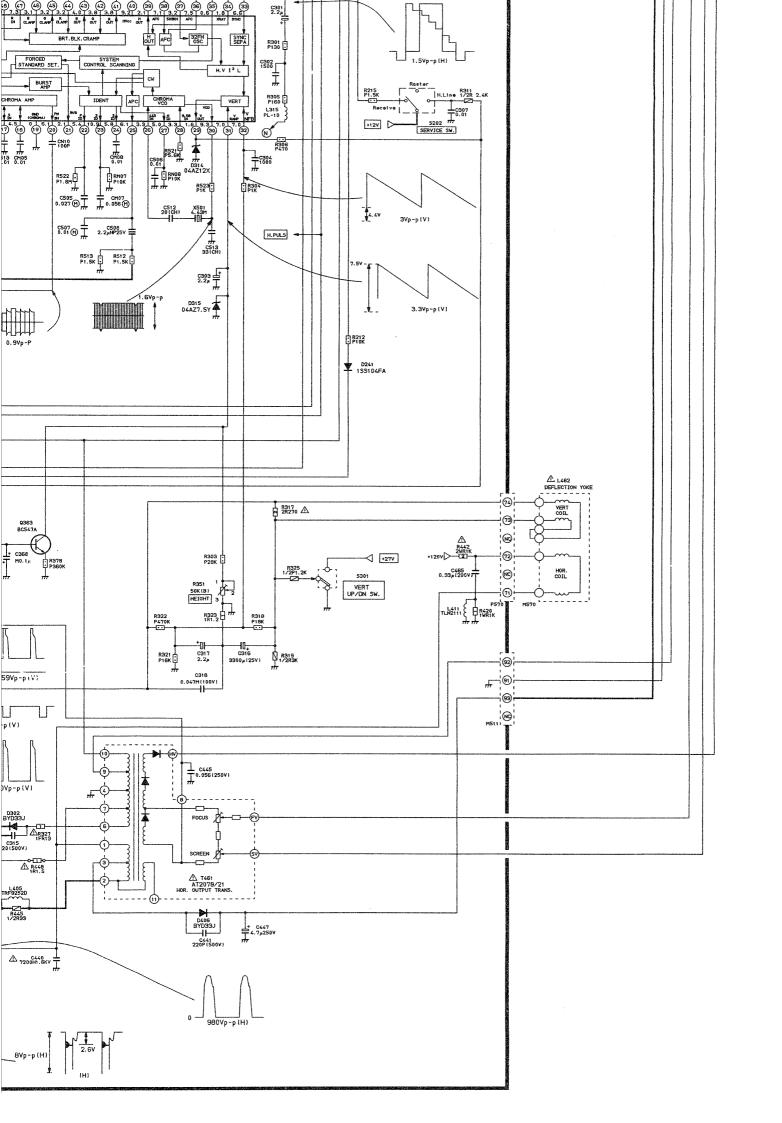












SCHEMATIC DIAGRAM (2/2)

OBSERVATION OF VOLTAGES AND WAVEFORMS

The control of a control of the cont

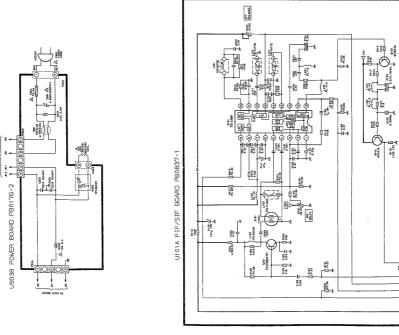
| Nation Mackings | NARTAGE | NARK | 1/600 | C.S. | 1/21 | C.S. | Suffixes to VR values:

LAW MARK

LAW (0)

C Curve Dissourcestrice (0)

D HAIN BOAID î î Section Control of State of St 2013001H Met Ga U101B TEXT (PHILIPS) BOARD PB0837-2 0.00 Prop. 10.00 P



# 2100TNT

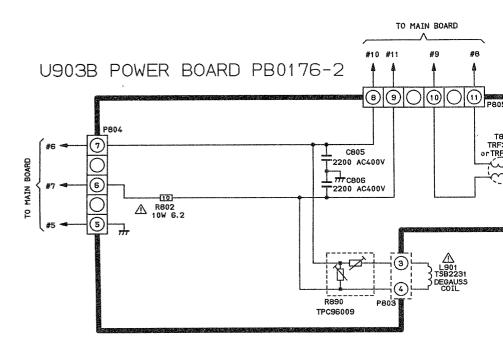
SCHEMATIC DIAGRAM (2/2)

#### IMPORTANT SAFETY NOTICE

Component marked with the International Hazard Symbol must, if changaproved type and must be mounted as the original. This will ensure the adhered to during manufacture will be maintained following any servicing the service of the

#### **OBSERVATION OF VOLTAGES AND WAVEFORMS**

- 1. Voltage readings were obtained using a high impedance digital vol-
- (-) or ground lead of instruments should be connected to the gro shematic on checking Non-isolated circuit surrounded by mark b to the points marked ( m ) on checking isolated circuit.
- 3. The voltage readings may vary as much as  $\pm 20\%$ .
- Check that the Tuning, A.F.C., Brightness, Contrast and Colour c the best picture, making sure that the Contrast, Brightness and near to their mid-positions.
- The waveforms were taken using a standard colour bar signal an wide band oscilloscope via a low capacity probe.



U101A PIF/SIF BOARD PB0837-1

ust, if changed, be replaced by an Il ensure that the safety standards any servicing procedure.

e digital voltmeter.

ed to the ground marked (上) in the by mark but should be connected it

nd Colour controls are adjusted for threes and Colour controls are set

ar signal and were observed using a

#### NOTES:

1. This circuit diagram is subject to change without notice.

#### **EXPRESSION**

#### VALUE OF RESISTOR, CAPACITOR and INDUCTOR

- 1. Resistance is shown in ohm, k=1,000, M=1,000,000.
- 2. Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in  $\mu\,F$  and the values more than 1 in  $p\,F$ .

RESIST

Prefixed

Ca

Ins.

Ceme

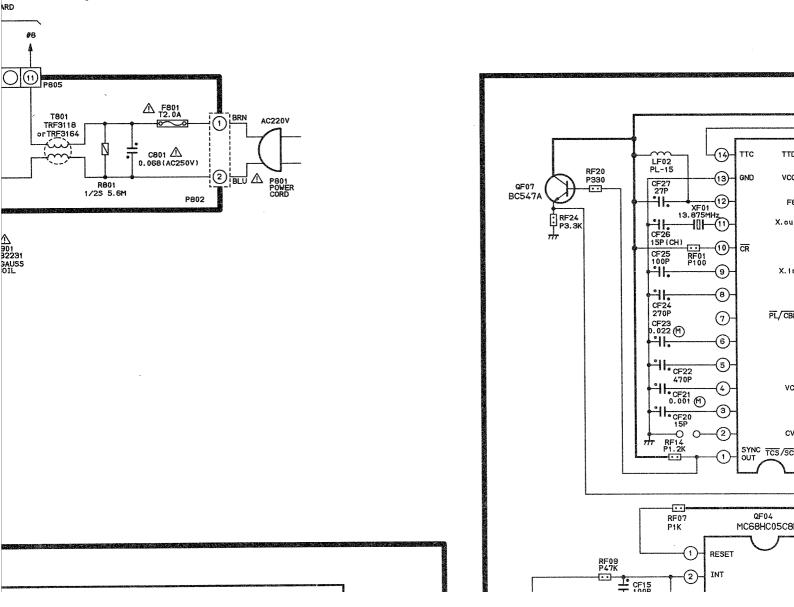
٧

F

3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in  $\mu H$ , and the values less than 1 in H.

#### **GROUNDING SYMBOL**

1. 1: Non isolated ground, it isolated ground.



#### **RESISTORS**

#### Prefixed to values:

TYPE	MARK
Carbon Comp.	s
Oxide Metal Film	R
Ins. Carbon Film	P
Wire Wound	W
Cement covered W.W.	NO MARK
Fusible Res.	FR

#### Suffixes to values:

TOLERANCE	MARK
±1%	(F)
±2%	(G)

#### Suffixes to VR values:

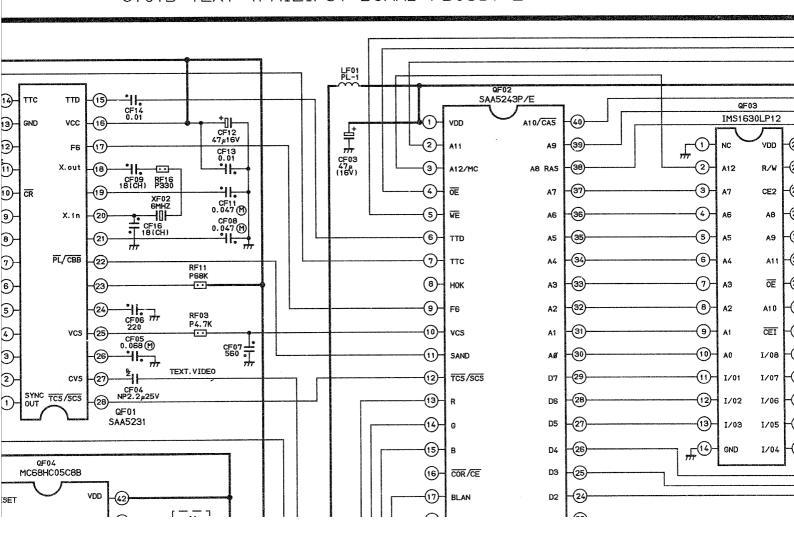
Carrixes to 411 values.		
LAW	MARK	
Linear	(B)	
'C' Curve Characteristic	(C)	

#### \* Rating Markings:

WATTAGE	MARK
1/6W	_ <b></b>
1/4W	
1/2W	
1 W	-Ci
2W	- 2 -

WATTAG
3W
5W
10W
15W
20W
25W

### U101B TEXT (PHILIPS) BOARD PB0837-2



#### \* Rating Markings:

WATTAGE	MARK
1/6W	<b>-00</b> -
1/4W	
1/2W	
1W	-CI
2W	- 2 -

WATTAGE	MARK
3W	-[3]-
5W	<u>-[5]</u> -
10W	10
15W	<del> 15</del> <del></del>
20W	-[20]-
25 W	<u></u>

### CAPACITORS

#### Rating Markings:

rating manificula.		
Туре	Mark	
Ceramic Disc 50V Only	<del>.</del>	
Electrolytic	‡∏ ⊩ ‡∎ ⊩	
Electrolytic Non-Polar	-[] []- -[] []-	
Variable Capacitor	#	
Other	-11-	
-		

